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=> d his

     (FILE 'HOME' ENTERED AT 07:50:27 ON 25 NOV 2002)

     FILE 'HCAPLUS' ENTERED AT 07:51:11 ON 25 NOV 2002

     FILE 'REGISTRY' ENTERED AT 07:51:42 ON 25 NOV 2002
                E DEXTRAN/CN
L1            1 S E3
                E GALACTOMANNAN/CN
L2            1 S E3
                E GLUCOMANNAN/CN
L3            1 S E3

     FILE 'HCAPLUS' ENTERED AT 07:52:11 ON 25 NOV 2002
L4        13931 S L1 OR L2 OR L3
L5        21248 S L4 OR DEXTRAN# OR GALACTOMANNAN# OR GLUCOMANNAN# OR (GALACTO
L6         1163 S L5 AND 17/SX,SC
L7          667 S L5 AND (FOOD? OR FEED# OR NUTRITIONAL (L) SUPPLEMENT#)
L8         1236 S L7 OR L6
L9        50457 S POLYSACCHARIDE#
L10        1136 S L9 (L) (FFD/RL)
L11         363 S L5 (L) FFD/RL
L12        1416 S L11 OR L10
L13         344 S L12 AND L8
L14       18357 S INTESTIN? (L) (DISEASE# OR DISORDER#)
L15           6 S L13 AND L14
L16         307 S INTESTIN? (L) JUNCTION#
L17           2 S L13 AND L16
L18         303 S (INTESTIN? (S) JUNCTION#)/AB
L19           2 S L18 AND L13
L20      355776 S (ALLERG? OR SEPSIS OR INFLAMMA? OR STRESS OR ISCHEMIA OR ISCH
L21          12 S L20 AND L13
L22          15 S L21 OR L19 OR L17 OR L15
L23          19 S L12 AND (L16 OR L18 OR L14)
L24          13 S L23 NOT L22
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=> fil reg

FILE 'REGISTRY' ENTERED AT 08:07:42 ON 25 NOV 2002
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   22 NOV 2002  HIGHEST RN 474352-65-3
DICTIONARY FILE UPDATES:  22 NOV 2002  HIGHEST RN 474352-65-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d que l1;d l1
L1             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DEXTRAN/CN



L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2002 ACS
RN   9004-54-0  REGISTRY
CN   Dextran (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Dextrans (8CI)
OTHER NAMES:
CN   .alpha.-Dextran
CN   58: PN: WO0185782 FIGURE: 18 claimed sequence
CN   CDC-H
CN   DEX 500
CN   Dextran 1.5
CN   Dextran 10
CN   Dextran 1000
CN   Dextran 110
CN   Dextran 15
CN   Dextran 150
CN   Dextran 2000
CN   Dextran 250
CN   Dextran 3000
CN   Dextran 40
CN   Dextran 45
CN   Dextran 500
CN   Dextran 60
CN   Dextran 70
CN   Dextran 75
CN   Dextran B 512
CN   Dextran B1355
CN   Dextran D 10
```

CN Dextran PL 1S
CN Dextran PT 25
CN Dextran PVD
CN Dextran RMI
CN Dextran T 10
CN Dextran T 110
CN Dextran T 150
CN Dextran T 20
CN Dextran T 2000
CN Dextran T 500
CN Dextran T 70
CN Dextranen
CN Dextraven
CN Eudextran
CN Expandex
CN Gentran
CN Hemodex
CN Hyscon
CN Hyskon
CN Infucoll
CN Intrader
CN Intradex
CN LMD
CN LMWD
CN Longasteril 70
CN LU 122
CN LVD
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 12626-85-6, 9013-80-3, 9044-66-0, 11104-36-2, 11121-03-2, 37224-17-2, 86280-85-5
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHAR, PHARMASEARCH, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
11725 REFERENCES IN FILE CA (1962 TO DATE)
2203 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
11750 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> d que l2
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON GALACTOMANNAN/CN

=> d l2

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN 11078-30-1 REGISTRY
CN D-Galacto-D-mannan (9CI) (CA INDEX NAME)
OTHER NAMES:

CN Daikol U 2
CN Faibaron S
CN **Galactomannan**
CN Guapack PM 1
CN Mannan, galacto
CN Mannogalactan
CN Meyprogat 7
CN Meyproid 7700
CN Molvenïn 848
DR 74505-30-9, 76688-81-8
MF Unspecified
CI COM, MAN
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NAPRALERT, PIRA, PROMT, TOXCENTER, TULSA, USPAT2, USPATFULL
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1400 REFERENCES IN FILE CA (1962 TO DATE)
204 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1402 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> d que l3;d l3
L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON GLUCOMANNAN/CN

=> d l3

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN 11078-31-2 REGISTRY
CN D-Gluco-D-mannan (9CI) (CA INDEX NAME)
OTHER NAMES:
CN DH 6665F
CN **Glucomannan**
CN Mannan, gluco
CN Mannoglucan
CN Probol
CN Propol LM
DR 50926-01-7
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, NAPRALERT, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
1010 REFERENCES IN FILE CA (1962 TO DATE)
87 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1010 REFERENCES IN FILE CAPLUS (1962 TO DATE)

```
=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 08:08:05 ON 25 NOV 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 25 Nov 2002  VOL 137 ISS 22
FILE LAST UPDATED: 24 Nov 2002  (20021124/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d his l4-

     (FILE 'HCAPLUS' ENTERED AT 07:52:11 ON 25 NOV 2002)
L4         13931 S L1 OR L2 OR L3
L5         21248 S L4 OR DEXTRAN# OR GALACTOMANNAN# OR GLUCOMANNAN# OR (GALACTO
L6          1163 S L5 AND 17/SX,SC
L7           667 S L5 AND (FOOD? OR FEED# OR NUTRITIONAL (L) SUPPLEMENT#)
L8          1236 S L7 OR L6
L9         50457 S POLYSACCHARIDE#
L10         1136 S L9 (L) (FFD/RL)
L11          363 S L5 (L) FFD/RL
L12         1416 S L11 OR L10
L13          344 S L12 AND L8
L14        18357 S INTESTIN? (L) (DISEASE# OR DISORDER#)
L15            6 S L13 AND L14
L16          307 S INTESTIN? (L) JUNCTION#
L17            2 S L13 AND L16
L18          303 S (INTESTIN? (S) JUNCTION#)/AB
L19            2 S L18 AND L13
L20       355776 S (ALLERG? OR SEPSIS OR INFLAMMA? OR STRESS OR ISCHEMIA OR ISCH
L21           12 S L20 AND L13
L22           15 S L21 OR L19 OR L17 OR L15
L23           19 S L12 AND (L16 OR L18 OR L14)
L24           13 S L23 NOT L22


=> d .ca l22 1-15;d .ca l24 1-13

L22  ANSWER 1 OF 15  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:        2002:644940  HCAPLUS
```

DOCUMENT NUMBER: 137:168873
TITLE: **Antidiarrheal feed** containing biodegradable crosslinked polysaccharides
INVENTOR(S): Kawanaka, Satoshi; Nakai, Miho; Naito, Nobuhiro; Wada, Satoko; Yoshino, Takemasa
PATENT ASSIGNEE(S): Unitika Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002238468	A2	20020827	JP 2001-46666	20010222

AB Feeds for livestock, pet animal, etc. contain crosslinked polysaccharides absorbing .gtoreq.10-fold wt. of 0.9 wt.% aq. NaCl soln. Guar gum was treated with ammonium zirconyl carbonate and Na2B4O7 to give a water absorbent, which was added to dog feed for treatment of diarrhea.
IC ICM A23K001-16
ICS A23K001-175
CC 18-4 (Animal Nutrition)
ST **feed** crosslinked polysaccharide **diarrhea** treatment; guar gum boron zirconium crosslinked **feed**; water absorbent biodegradable crosslinked polysaccharide **feed**
IT **Antidiarrheals**
Diarrhea
Feed
(**antidiarrheal feed** contg. crosslinked polysaccharides)
IT **Polysaccharides**, biological studies
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**antidiarrheal feed** contg. crosslinked **polysaccharides**)
IT 440331-48-6, Guar gum-sodium tetraborate copolymer zirconium salt
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**antidiarrheal feed** contg. crosslinked **polysaccharides**)
IT **11078-30-1, Galactomannan**
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(crosslinked; **antidiarrheal feed** contg. crosslinked **polysaccharides**)

L22 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:157504 HCAPLUS
DOCUMENT NUMBER: 136:182880
TITLE: Nutritional composition with reduced satiety induction for treatment of appetite disorders and other illnesses
INVENTOR(S): Fuchs, Eileen C.; Garcia-Rodenas, Clara L.; Guigoz, Yves; Leathwood, Peter; Reiffers-Magnani, Kristel; Mallangi, Chandrasekhara R.; Turini, Marco; Anantharaman, Helen Gillian
PATENT ASSIGNEE(S): Societe des Produits Nestle S.A., Switz.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002015719	A2	20020228	WO 2001-EP9578	20010820
WO 2002015719	A3	20020530		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002044988	A1	20020418	US 2001-821498	20010329
US 2002044957	A1	20020418	US 2001-821499	20010329
AU 2001095488	A5	20020304	AU 2001-95488	20010820

PRIORITY APPLN. INFO.: US 2000-227117P P 20000822
WO 2001-EP9578 W 20010820

AB A compn. is described for a nutritional supplement for convalescing patients recovering from illness or surgery, those with limited appetite such as the elderly, children or anorexic patients, or those who have impaired ability to digest other sources of protein such as persons having chronic gastritis who have a reduced gastric pepsin digestion. The supplement comprises: (i) a protein source which provides at least about 8% total calories of the compn. and which includes at least about 50% by wt. whey protein; (ii) a lipid source having an omega 3:6 fatty acid ratio of about 5:1 to about 10:1 and which provides at least about 18% total calories of the compn.; (iii) a carbohydrate source; and (iv) a balanced macronutrient profile comprising at least vitamin E and vitamin C. The supplement has reduced capacity to induce satiety. Also disclosed are a method of prodn. of the compn.; use of the compn. in the manuf. of a functional food or medicament; and a method of treatment which comprises administering an effective amt. of the compn.

IC ICM A23L001-29
ICS A23L001-305; A23L001-302

CC **17-6** (Food and Feed Chemistry)
Section cross-reference(s): 63

ST **nutritional** satiety redn **supplement** illness appetite disorder

IT **Food**
(dietetic bars; nutritional compn. with reduced satiety induction for treatment of appetite disorders and other illnesses)

IT **Food**
Puddings
(dietetic; nutritional compn. with reduced satiety induction for treatment of appetite disorders and other illnesses)

IT **Feed**
(pet; nutritional compn. with reduced satiety induction for treatment of appetite disorders and other illnesses)

IT **Intestinal** bacteria
(probiotic; nutritional compn. with reduced satiety induction for treatment of appetite **disorders** and other illnesses)

IT 50-81-7, Vitamin C, biological studies 57-50-1, Sucrose, biological studies 59-30-3, Folic acid, biological studies 68-19-9, Vitamin B12 107-35-7, Taurine 1406-18-4, Vitamin E 9000-01-5, Acacia gum

9004-54-0, **Dextran**, biological studies 9005-80-5, Inulin 9050-36-6, Maltodextrin
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nutritional compn. with reduced satiety induction for treatment of appetite disorders and other illnesses)

L22 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:359740 HCAPLUS
DOCUMENT NUMBER: 134:339848
TITLE: Nutritional compositions which contain non-digestible polysaccharides and use thereof to reduce transport through tight junctions
INVENTOR(S): Kiliaan, Amanda Johanne; Groot, Jacques Alphons; Timmermans, Johannes Wilhelmus; Van Der Meulen, Jan; Van Laere, Katrien Maria Jozefa; Bijlsma, Pieter Brandt
PATENT ASSIGNEE(S): N.V. Nutricia, Neth.
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001033975	A1	20010517	WO 2000-NL697	20000929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
NL 1013175	C2	20010330	NL 1999-1013175	19990929
EP 1217902	A1	20020703	EP 2000-970318	20000929
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: NL 1999-1013175 A 19990929
WO 2000-NL697 W 20000929

AB The present invention relates to the use of one or more non-digestible polysaccharides selected from the group consisting of dextrans having a mol. wt. of 8 kD to 40,000 kD, hydrolyzed (gluco)mannans having a mol. wt. of 0.5 kD to 1,000 kD and hydrolyzed (galacto)mannans having a mol. wt. of 0.5 kD to 1,000 kD for the prepn. of a nutritional compn. to reduce the uptake of high mol. wt. substances, allergens and microorganisms through the **intestinal** wall, more particularly to reduce transport of high mol. wt. substances, allergens and microorganisms through the tight **junctions** in the **intestines**, the rise in the viscosity of the nutritional compn. caused by the polysaccharides being less than 20 mPa. The nutritional compns. can be used to prevent or to treat allergy, allergic reactions, sepsis and inflammatory processes, such as can arise under emotional and phys. stress, ischemia, reperfusion damage during and after operations, after radiation treatment and/or chemotherapy of cancer patients and in the case of inflammatory diseases of the intestine, diarrhea and allergies.

IC ICM A23L001-054

ICS A23L001-0528; A23L001-0526; A61K031-715; A61P003-02
CC **17-6** (Food and Feed Chemistry)
Section cross-reference(s): 63
ST **food feed** additive nondigestible polysaccharide **intestine disorder; allergen**
inflammation food additive nondigestible polysaccharide
IT **Reperfusion**
(damage; nutritional compns. which contain non-digestible polysaccharides and use thereof to reduce transport through tight junctions)
IT **Food**
(dietetic; nutritional compns. which contain non-digestible polysaccharides and use thereof to reduce transport through tight junctions)
IT Swine
(**feed** additives; nutritional compns. which contain non-digestible polysaccharides and use thereof to reduce transport through tight junctions)
IT **Intestine, disease**
(**inflammatory**; nutritional compns. which contain non-digestible polysaccharides and use thereof to reduce transport through tight **junctions**)
IT **Allergy** inhibitors
Anti-**inflammatory** agents
Antidiarrheals
Biological transport
Chemotherapy
Drug delivery systems
Feed additives
Food additives
Food functional properties
Food viscosity
Intestinal content
Ischemia
Microorganism
Radiation damage
Sepsis
(nutritional compns. which contain non-digestible polysaccharides and use thereof to reduce transport through tight **junctions**)
IT **Allergens**
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(nutritional compns. which contain non-digestible polysaccharides and use thereof to reduce transport through tight junctions)
IT **Polysaccharides**, biological studies
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nutritional compns. which contain non-digestible **polysaccharides** and use thereof to reduce transport through tight junctions)
IT **Stress**, animal
(transport; nutritional compns. which contain non-digestible polysaccharides and use thereof to reduce transport through tight junctions)
IT **9004-54-0, Dextran**, biological studies
11078-30-1, Galactomannan 11078-31-2, Glucomannan
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nutritional compns. which contain non-digestible **polysaccharides** and use thereof to reduce transport through tight junctions)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:55797 HCAPLUS
DOCUMENT NUMBER: 134:279887
TITLE: Processing of frost-damaged beets at CSM and the use of dextranase
AUTHOR(S): De Bruijn, Jan Maarten
CORPORATE SOURCE: CSM Suiker bv, Centraal laboratorium, Breda, 4800 DE, Neth.
SOURCE: Zuckerindustrie (Berlin) (2000), 125(11), 898-902
CODEN: ZUCKDI; ISSN: 0344-8657
PUBLISHER: Verlag Dr. Albert Bartens
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The 1998 sugar beet campaign of in the Netherlands suffered from severe weather conditions, i.e. subsequent periods of plentiful rainfall, frost and thaw. Thus, the harvest and processing quality of the beets became troublesome and this affected the processing capacity of the sugar factories. A high-performance liq. chromatog. method (HPAEC-PAD) was rapidly developed in order to be able to monitor the degree of deterioration of the frost-damaged beets. Both the invert sugar and dextran levels were analyzed daily in raw juice samples. About 10 days after the outdoor temp. rose above 0.degree.C, the concn. of both sugar types sharply increased, thus causing processing problems. Even at relatively low levels of dextran in raw juice (i.e. 75 mg/l), the filtration rate of the 2nd carbonation slurry dropped markedly and, consequently, the slicing capacity decreased to 50%. The dosage of 10 mg/l NOVO 50L dextranase enzyme to the extn. appeared to be sufficient to restore the slicing capacity to 90% of the nominal capacity. In fact it was the high level of invert sugar in thawed beets (up to 4 g/l in raw juice) which made the processing of this low-quality beet material most uneconomic. The high invert sugar content consumed (in juice purifn.) a good deal of alky., which could only be compensated by the addn. of excessive amts. of caustic soda. Consequently, both the juice quality became very moderate (e.g. low juice purity, high lime salts content, high juice as well as sugar color) and the amt. of sugar that ended up in the molasses reached an unacceptably high level.

CC **17-10** (Food and Feed Chemistry)
Section cross-reference(s): 11

IT **Stress**, plant
(frost; processing of frost-damaged beets at CSM and the use of dextranase)

IT **Food** additives
Food processing
Molasses
Sugar beet
(processing of frost-damaged beets at CSM and the use of dextranase)

IT 57-50-1, Sucrose, biological studies **9004-54-0, Dextran**, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); **FFD (Food or feed use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(processing of frost-damaged beets at CSM and the use of dextranase)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:880916 HCAPLUS
DOCUMENT NUMBER: 134:16843
TITLE: Particulate fibre composition
INVENTOR(S): Hessel, Lasse L.; Malling, Jesper; Gudmand-Hoyer, Eivind
PATENT ASSIGNEE(S): Fibersugar Aps, Den.
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000074501	A1	20001214	WO 2000-DK307	20000607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1189523	A1	20020327	EP 2000-931048	20000607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: DK 1999-801 A 19990607
DK 2000-875 A 20000606
WO 2000-DK307 W 20000607

AB A particulate fiber compn. contains at least one first dietary fiber, coated by an insol. dietary fiber or a dietary fiber with low soly., serving to prevent dissoln. of the fiber compn. in the oral cavity and during passage through the esophagus. The fiber compn. has one or several inserted addnl. layers of at least one second dietary fiber between the at least one first dietary fiber and the coating of the insol. dietary fiber/dietary fiber of low soly. This fiber compn. can be produced and made for individual and special purposes and applications in as much as the different properties in relation to soly. and fermentability of the fibers are utilized for the prodn. of multilayer particles. The dietary fiber supplement can be applied as pharmaceuticals and in food products where high fiber content and small calorie content is given high priority. Furthermore, the dietary fiber supplement can be applied for replacement of part of the sugar in sugar coatings of generally known cereals.

IC ICM A23L001-308
ICS A61K047-36; A61K009-28
CC **17-6** (Food and Feed Chemistry)
Section cross-reference(s): 18, 63
ST dietary fiber compn **food** pharmaceutical
IT **Intestine, disease**
(constipation; slowly digestible particulate fiber compn.)
IT Antibacterial agents
Antioxidants
Coating materials
Coating process
Coloring materials
Dietary fiber

Flavoring materials
Food processing
Health products
Obesity
Sound and Ultrasound
Wheat bran
(slowly digestible particulate fiber compn.)

IT 50-99-7, Dextrose, biological studies 471-80-7D, Steviol, glycosides 8063-16-9, Psyllium 9000-01-5, Gum arabic 9000-30-0, Guar gum 9000-69-5, Pectin 9004-34-6, Cellulose, biological studies **9004-54-0**, **Dextran**, biological studies 9005-25-8D, Starch, modified, biological studies 9005-32-7, Alginic acid 9005-32-7D, Alginic acid, salts 9005-35-0, Calcium alginate 9005-36-1, Potassium alginate 9005-80-5, Inulin 10043-52-4, Calcium chloride, biological studies 13241-33-3, Neohesperidin 187112-48-7, Raftilose
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(slowly digestible particulate fiber compn.)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:706937 HCAPLUS
DOCUMENT NUMBER: 133:265962
TITLE: Nutritional compositions which contain slightly negatively charged, non-digestible polysaccharides and the use thereof for reducing transport through tight junctions
INVENTOR(S): Bijlsma, Pieter Brandt; Groot, Jacques Alphons; Timmermans, Johannes Wilhelmus; Van Der Meulen, Jan; Kiliaan, Amanda Johanne
PATENT ASSIGNEE(S): N.V. Nutricia, Neth.
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000057727	A1	20001005	WO 2000-NL187	20000321
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
NL 1011680	C2	20000927	NL 1999-1011680	19990326
EP 1164874	A1	20020102	EP 2000-914366	20000321
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: NL 1999-1011680 A 19990326
WO 2000-NL187 W 20000321

AB The present invention relates to a nutritional compn. which contains slightly neg. charged non-digestible polysaccharides having a mol. wt. of 8 kD to 40,000 kD, characterized in that the rise in the viscosity of the compn. caused by the polysaccharides is less than 20 mPa.s. The invention

also relates to the use of this nutritional compn. to reduce the uptake of high mol. wt. substances, allergens and microorganisms through the **intestinal** wall, more particularly to reduce transport of high mol. wt. substances, allergens and microorganisms through the tight **junctions** in the **intestines**. The nutritional compns. can be used to prevent or to treat allergies, allergic reactions, sepsis and inflammatory processes, such as those which can arise under emotional and phys. stress, ischemia, reperfusion damage during and after operations, following radiation treatment and/or chemotherapy of cancer patients and in the case of inflammatory intestinal diseases, diarrhea and allergies.

IC ICM A23L001-308
ICS A61K031-715; A23L001-054; A23L001-0526

CC **17-6** (Food and Feed Chemistry)
Section cross-reference(s): 18, 63

ST **intestine disorder** prevention **food** polysaccharide; **inflammation** prevention **intestine** polysaccharide; **allergy** prevention **intestine** polysaccharide

IT **Intestine**
(absorption; nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight **junctions**)

IT **Food**
(bars; nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight junctions)

IT **Intestine, disease**
(enteritis; nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight **junctions**)

IT **Intestine, disease**
(**inflammatory**; nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight **junctions**)

IT **Intestine, disease**
(**ischemia**; nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight **junctions**)

IT **Intestine, disease**
(microvillus infection; nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight **junctions**)

IT **Allergy** inhibitors
Carboxyl group
Dairy products
Diarrhea
Food additives
Food allergy
Food viscosity
Microorganism
Phosphate group
Reperfusion
Sepsis
(nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight junctions)

IT **Polysaccharides**, biological studies
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nutritional compns. which contain slightly neg. charged, non-digestible **polysaccharides** and the use thereof for reducing transport through tight junctions)

IT **Allergens**
RL: REM (Removal or disposal); PROC (Process)
(nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight junctions)

IT **Feed**
(swine; nutritional compns. which contain slightly neg. charged, non-digestible polysaccharides and the use thereof for reducing transport through tight junctions)

IT 9000-30-0, Guar gum
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(nutritional compns. which contain slightly neg. charged, non-digestible **polysaccharides** and the use thereof for reducing transport through tight junctions)

IT 9000-30-0D, Guar gum, phosphate derivs. **9004-54-0**, **Dextran**, biological studies **9004-54-0D**, **Dextran**, cyano- and carboxy derivs., biological studies 9040-27-1, Arabinoxylan **11078-30-1**, **Galactomannan 11078-31-2**, **Glucomannan** 161544-34-9, Carboxydextran
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nutritional compns. which contain slightly neg. charged, non-digestible **polysaccharides** and the use thereof for reducing transport through tight junctions)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:701893 HCAPLUS
DOCUMENT NUMBER: 133:251556
TITLE: Composition and method for reducing the colonization of animal intestines by Salmonella and other bacterial pathogens
INVENTOR(S): Kross, Robert D.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 8 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6126961	A	20001003	US 1998-59161	19980413

AB An animal feed compn. for reducing colonization of animal intestines by Salmonella and other bacterial pathogens, includes a polysaccharide contg. cis-hydroxy sugar units or a deriv. thereof, or the monosaccharide ribose or rhamnose, or a deriv. thereof, and an animal feed. The polysaccharide cis-hydroxy sugar units may be one or more of mannose, a mannose deriv., galactose, a galactose deriv., galactomannans, galactosamine, fucose and arabinose. The polysaccharides may be incorporated into an animal feed in the form of a food gum or other biopolymer.

IC ICM A23K001-18
NCL 424442000
CC **17-12** (Food and Feed Chemistry)
Section cross-reference(s): 14, 63

ST polysaccharide **feed** additive livestock intestine infection
IT **Feed** additives
Gums and Mucilages
Pathogenic bacteria
Salmonella
Salmonella choleraesuis
Salmonella typhimurium
(compn. and method for reducing the colonization of animal intestines by Salmonella and other bacterial pathogens)
IT Biopolymers
Polysaccharides, biological studies
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compn. and method for reducing the colonization of animal intestines by Salmonella and other bacterial pathogens)
IT **Intestine, disease**
(infection; compn. and method for reducing the colonization of animal **intestines** by Salmonella and other bacterial pathogens)
IT 50-69-1, Ribose 50-69-1D, Ribose, derivs. 59-23-4D, Galactose, **polysaccharides** 147-81-9D, Arabinose, **polysaccharides** 2438-80-4D, Fucose, **polysaccharides** 3458-28-4D, Mannose, **polysaccharides** 3615-41-6, Rhamnose 3615-41-6D, Rhamnose, derivs. 7535-00-4D, Galactosamine, **polysaccharides** 9000-01-5, Gum arabic 9000-07-1, Carrageenan 9000-30-0, Guar gum 9000-65-1, Gum tragacanth 9000-69-5, Pectin 9005-38-3, Algin **11078-30-1D**, **Galactomannan**, **polysaccharides** 11138-66-2, Xanthan gum
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compn. and method for reducing the colonization of animal intestines by Salmonella and other bacterial pathogens)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:493312 HCAPLUS
DOCUMENT NUMBER: 133:101738
TITLE: Tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained
INVENTOR(S): Vittori, Natale
PATENT ASSIGNEE(S): Vito-Mannan Polysaccharide L.L.C., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000041541	A2	20000720	WO 2000-US759	20000111
WO 2000041541	A3	20011115		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,

DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BF, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2328092 AA 20000720 CA 2000-2328092 20000111
EP 1144456 A2 20011017 EP 2000-904309 20000111
EP 1144456 A3 20020911
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
US 6482942 B1 20021119 US 2000-481111 20000111
PRIORITY APPLN. INFO.: US 1999-115619P P 19990112
WO 2000-US759 W 20000111

AB The present invention provides a method of isolating mucilaginous polysaccharides from plants, cereals, cell cultures, or fungi such as mushrooms known to have mucilaginous or protein-bound polysaccharides with desirable biol. properties. The mucilaginous polysaccharides present in aq. soln. or tissue exts. are treated with tannins to form a complex which is then sepd. from the soln. The complex is then treated one or more times with either solvents or other substances in soln. to remove the bounded tannins from the complex thereby and releasing the isolated polysaccharide. The polysaccharides prepd. according to the present method retain properties that are substantially similar to those of the native polysaccharide as it is found in the resp. plant or cell. The polysaccharides thus prepd. are used in a variety of products, e.g., in cosmetics, pharmaceuticals, and food products. This process is particularly suitable for isolating acetylated mannose polymers from aloe plants and beta glucans.

IC C12P019-00

CC 9-9 (Biochemical Methods)
Section cross-reference(s): 10, 11, **17**, 62, 63

IT **Food**
(and **food** supplements; tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained)

IT **Intestine, disease**
(**inflammatory**, treatment of; tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained)

IT **Intestine, disease**
(malabsorption, treatment of; tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained)

IT Proteins, specific or class
RL: **FFD (Food or feed use)**; PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**polysaccharide**-bound; tannins in method of isolating mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT **Polysaccharides**, biological studies
RL: **FFD (Food or feed use)**; PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(tannins in method of isolating mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT Anti-**inflammatory** agents
(topical, ointments; tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained)

IT AIDS (disease)
Allergy
Alopecia
Anxiety

Asthma
Cystic fibrosis
Hypercholesterolemia
Immunodeficiency
Inflammation
Influenza
Leukemia
Liver, neoplasm
Lupus erythematosus
Malnutrition
Multiple sclerosis
Mycosis
Neoplasm
Rheumatic fever
Sunburn
Tuberculosis
(treatment of; tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained)

IT **Intestine, disease**
(ulcerative colitis, treatment of; tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained)

IT 283603-85-0P, Vitto-Mannan
RL: **FFD (Food or feed use)**; PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(tannins in method of isolating mucilaginous **polysaccharides** and uses for the **polysaccharides** thus obtained)

IT 4049-33-6DP, compds. 9051-97-2DP, compds. **11078-30-1DP**, **Galactomannan**, compds. 55965-23-6DP, compds.
RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)
(tannins in method of isolating mucilaginous polysaccharides and uses for the polysaccharides thus obtained)

L22 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:252944 HCAPLUS
DOCUMENT NUMBER: 132:278482
TITLE: Medical **food** composition of reduced **allergenicity**, especially adapted for improving gut mucosal integrity
INVENTOR(S): Liska, De Ann; King, Margaret; Medcalf, Darrell; Peterson, De Brian; Bland, Jeffrey
PATENT ASSIGNEE(S): Healthcomm International, Inc., USA
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6051260	A	20000418	US 1998-56734	19980407

AB Parboiled rice flour is used in lieu of other grain flour in medical foods to minimize antigenicity of the medical food product.

IC ICM A61K033-06
ICS A61K031-01; A61K031-315; A61K038-02
NCL 424602000
CC **17-11** (Food and Feed Chemistry)
ST parboiled rice flour **food** antigenicity

IT Rice (Oryza sativa)
Rice (Oryza sativa)
(flour, parboiled; medical **food** compn. of reduced **allergenicity**, esp. adapted for improving gut mucosal integrity)
IT **Allergens**
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(medical **food** compn. of reduced **allergenicity**, esp. adapted for improving gut mucosal integrity)
IT Amino acids, biological studies
Canola oil
Carotenes, biological studies
Fructooligosaccharides
Vitamins
RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(medical **food** compn. of reduced **allergenicity**, esp. adapted for improving gut mucosal integrity)
IT Intestine
(mucosa; medical **food** compn. of reduced **allergenicity**, esp. adapted for improving gut mucosal integrity)
IT Flours and Meals
Flours and Meals
(rice, parboiled; medical **food** compn. of reduced **allergenicity**, esp. adapted for improving gut mucosal integrity)
IT 50-81-7, Ascorbic acid, biological studies 52-89-1, L-Cysteine hydrochloride 56-85-9, L-Glutamine, biological studies 58-56-0, Pyridoxine hydrochloride 58-85-5, Biotin 58-95-7, .alpha.-Tocopheryl acetate 59-30-3, Folic acid, biological studies 67-03-8, Thiamine hydrochloride 67-97-0, Vitamin d3 68-19-9, Cyanocobalamin 70-18-8, Glutathione, biological studies 72-19-5, L-Threonine, biological studies 79-83-4, Pantothenic acid 83-88-5, Riboflavin, biological studies 98-92-0, Niacinamide 137-08-6, Calcium pantothenate 141-01-5, Ferrous fumarate 527-09-3, Copper gluconate 616-91-1, N-Acetylcysteine 6485-39-8, Manganese gluconate 7439-96-5, Manganese, biological studies 7439-98-7, Molybdenum, biological studies 7440-50-8, Copper, biological studies 7693-13-2, Calcium citrate 7757-93-9, Dicalcium phosphate 7758-11-4, Dibasic potassium phosphate **9004-54-0**, **Dextran**, biological studies 9005-80-5, Inulin 10098-89-2, L-Lysine hydrochloride 11103-57-4, Vitamin a 12001-79-5, Vitamin k 17949-65-4, Zinc picolinate
RL: **FFD (Food or feed use)**; MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(medical **food** compn. of reduced **allergenicity**, esp. adapted for improving gut mucosal integrity)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:689573 HCAPLUS
DOCUMENT NUMBER: 131:303223
TITLE: Small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions, methods for their production and applications in cosmetics, pharmaceuticals, and **foodstuffs**
INVENTOR(S): Perrier, Eric; Buffevant, Chantal; Bonnet, Isabelle; Levy, Marie-Christine
PATENT ASSIGNEE(S): Coletica, Fr.

SOURCE: Ger. Offen., 28 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19916896	A1	19991021	DE 1999-19916896	19990414
FR 2777193	A1	19991015	FR 1998-4611	19980414
FR 2777193	B1	20010608		
US 6132750	A	20001017	US 1998-108670	19980701
ES 2156074	A1	20010601	ES 1999-769	19990413
ES 2156074	B1	20020201		
JP 2000073043	A2	20000307	JP 1999-106183	19990414

PRIORITY APPLN. INFO.: FR 1998-4611 A 19980414

AB Small particles are disclosed which have surface walls made of a mixt. of at least one protein and at least one polysaccharide. Preferably, these are crosslinked at the surface with a polyfunctional acylating crosslinking agent by formation of amide and ester linkages or even anhydride linkages with the amine, hydroxy, or carboxyl functions of the proteins and polysaccharides. The particles bear hydroxam groups on their surfaces which allow chelation of metal ions. The particles can be used for chelating or releasing metal ions in cosmetics and pharmaceuticals.

IC ICM B01J013-02
ICS A61K009-50; A61K049-00; A61K051-12; A23P001-04; C02F001-58; A61K007-50; C09K015-04

CC 62-1 (Essential Oils and Cosmetics)
Section cross-reference(s): 8, 10, **17**, 63

IT Flours and Meals
Flours and Meals
(Ceratonia siliqua flour; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Collagens, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(atelocollagens; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Oxidation
(biol., inhibition of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Cations
(chelation of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Radionuclides, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(chelation of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Drug delivery systems
(controlled-release; small particles having walls made of cross-linked

proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Blood
Blood plasma
Milk
Solvents
(decontamination of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Essential oils
Polysiloxanes, preparation
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PREP (Preparation); PROC (Process)
(decontamination of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Ceratonia siliqua
Ceratonia siliqua
(flour; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Cosmetics
(gels; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Aspergillus niger
Candida albicans
Maillard reaction
Pseudomonas aeruginosa
Rancidity
Staphylococcus aureus
Sunburn
(inhibition of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Cosmetics
(lipsticks; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Drug delivery systems
(microspheres; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Soybean (Glycine max)
Soybean (Glycine max)
(milk; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Emulsions
(oil-in-water; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for

chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Proteins, specific or class
RL: BUU (Biological use, unclassified); DEV (Device component use); **FFD (Food or feed use)**; PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(**polysaccharide** conjugates; small particles having walls made of cross-linked proteins and **polysaccharides** and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT **Polysaccharides**, biological studies
RL: BUU (Biological use, unclassified); DEV (Device component use); **FFD (Food or feed use)**; PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(protein conjugates; small particles having walls made of cross-linked proteins and **polysaccharides** and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Barley
Brassica
Cicer
Corn
Helianthus
Legume (Fabaceae)
Lentil
Lupine (Lupinus)
Malt
Medicago
Oat
Pea
Phaseolus
Sesamum
Vicia
Wheat
(proteins of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT AIDS (disease)
Amidation
Anti-AIDS agents
Anti-**inflammatory** agents
Antibacterial agents
Chelating agents
Chelation
Cosmetics
Crosslinking agents
Decontamination
Drugs
Esterification
Flours and Meals
Food
Fungicides
NMR (nuclear magnetic resonance)
Paramagnetic materials
Particle size

Powders
Radical scavengers
Scintigraphic agents
Scintigraphy
Skin, disease
Sunscreens
Surface structure
Water purification
(small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Lactoferrins
Transferrins
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Hydroxamic acids
RL: BUU (Biological use, unclassified); DEV (Device component use); **FFD (Food or feed use)**; PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(small particles having walls made of cross-linked proteins and **polysaccharides** and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Collagens, reactions
Gelatins, reactions
Glycosaminoglycans, reactions
Pentosans
RL: RCT (Reactant); RACT (Reactant or reagent)
(small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Heavy metals
RL: REM (Removal or disposal); PROC (Process)
(small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT Proteins, general, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(soybean; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT 7722-84-1, Hydrogen peroxide, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(breakdown of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT 7429-90-5, Aluminum, processes 7439-89-6, Iron, processes 7439-92-1,

Lead, processes 7439-95-4, Magnesium, processes 7439-97-6, Mercury, processes 7440-02-0, Nickel, processes 7440-21-3, Silicon, processes 7440-22-4, Silver, processes 7440-38-2, Arsenic, processes 7440-43-9, Cadmium, processes 7440-47-3, Chromium, processes 7440-48-4, Cobalt, processes 7440-50-8, Copper, processes 7440-54-2, Gadolinium, processes 7440-56-4, Germanium, processes 7440-66-6, Zinc, processes 7440-70-2, Calcium, processes 7782-49-2, Selenium, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(chelation of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT 9001-12-1, Collagenase 9001-92-7, Proteinase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition of; small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT 9001-16-5, Cytochrome c oxidase 9001-66-5, Monoamine oxidase 9002-10-2, Tyrosinase 9013-38-1, Dopa .beta. hydroxylase 9029-44-1, Ascorbate oxidase 9031-37-2, Ceruloplasmin 9054-89-1, Superoxide dismutase
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT 7439-96-5, Manganese, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

IT 5470-11-1, Hydroxylamine hydrochloride 7803-49-8, Hydroxylamine, reactions 9000-01-5, Acacia gum 9000-07-1, Carrageenan 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-69-5, Pectin 9002-18-0, Agar 9004-32-4, Carboxymethyl cellulose sodium salt 9004-34-6D, Cellulose, derivs., reactions **9004-54-0**, **Dextran**, reactions 9004-61-9, Hyaluronic acid 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 9005-25-8D, Starch, derivs., reactions 9005-32-7D, Alginic acid, derivs. 9007-28-7, Chondroitin sulfate 9012-76-4, Chitosan 9036-66-2, Arabinogalactan **11078-30-1**, **Galactomannan 11078-31-2**, **Glucomannan** 11138-66-2, Xanthan gum 39464-87-4, Scleroglucan
RL: RCT (Reactant); RACT (Reactant or reagent)
(small particles having walls made of cross-linked proteins and polysaccharides and bearing surficial hydroxam groups for chelating metal ions for use in cosmetics, pharmaceuticals, and **foodstuffs**)

L22 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:580411 HCAPLUS
DOCUMENT NUMBER: 129:215884
TITLE: Masking of antigen structure of soybean protein by conjugation with polysaccharide and cross-linkage with microbial transglutaminase
AUTHOR(S): Babiker, E. F. E.; Matsudomi, N.; Kato, A.

CORPORATE SOURCE: Dep. Biological Chemistry, Yamaguchi Univ., Yamaguchi, 753, Japan
SOURCE: Nahrung (1998), 42(3-4), 158-159
CODEN: NAHRAR; ISSN: 0027-769X
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effect of polysaccharide conjugation and transglutaminase (TGase) treatment was investigated withon the allergenic protein in soybean. Soy protein (acid-pptd. protein, APP)-galactomannan conjugated and TGase-treated soy protein showed higher mol. wt. bands in SDS-PAGE. To identify the most allergenic protein, soy proteins were sepd. by gel cutting and extn. Polyclonal antibodies were raised in rabbits. Results of ELISA and immunoblotting showed that only the 34 kDa protein strongly cross-reacted with the antibody. To est. the effect of modifications on the allergenicity of soy protein, antibody titers were monitored by ELISA against APP, the chymotrypsin digest (APPC), TGase polymer, and APP-galactomannan conjugates. APPC was still allergenic, while the TGase treatment slightly reduced the allergenicity of APP, whereas galactomannan conjugates greatly reduced the allergenicity of APP. The protein-polysaccharide conjugation is more effective than TGase treatment and protease digestion to mask the allergenic structure.

CC **17-5** (Food and Feed Chemistry)
Section cross-reference(s): 15
ST soybean protein polysaccharide conjugation **allergy** nutrition; transglutaminase soybean protein **allergy** nutrition; antigen soybean protein **galactomannan allergy** nutrition

IT **Food allergy**
Maillard reaction
(masking of antigen structure of soybean protein by conjugation with polysaccharide and cross-linkage with microbial transglutaminase)

IT **Allergens**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(masking of antigen structure of soybean protein by conjugation with polysaccharide and cross-linkage with microbial transglutaminase)

IT **Polysaccharides**, biological studies
RL: **FFD (Food or feed use)**; RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(masking of antigen structure of soybean protein by conjugation with **polysaccharide** and cross-linkage with microbial transglutaminase)

IT Proteins, general, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); **FFD (Food or feed use)**; RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(soybean; masking of antigen structure of soybean protein by conjugation with **polysaccharide** and cross-linkage with microbial transglutaminase)

IT **11078-30-1P, Galactomannan**
RL: BPN (Biosynthetic preparation); **FFD (Food or feed use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugate with soy protein; masking of antigen structure of soybean protein by conjugation with **polysaccharide** and cross-linkage with microbial transglutaminase)

IT 80146-85-6, Transglutaminase
RL: BSU (Biological study, unclassified); **FFD (Food or feed use)**; RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(masking of antigen structure of soybean protein by conjugation with

polysaccharide and cross-linkage with microbial transglutaminase)

L22 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:550497 HCAPLUS
DOCUMENT NUMBER: 129:172134
TITLE: Protein-polymer conjugates with reduced immunogenicity and **allergenicity**
INVENTOR(S): Von Der Osten, Claus; Olsen, Arne Agerlin; Roggen, Erwin Ludo
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 124 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9835026	A1	19980813	WO 1998-DK46	19980206
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9857495	A1	19980826	AU 1998-57495	19980206
AU 740207	B2	20011101		
EP 1017794	A1	20000712	EP 1998-901327	19980206
R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
JP 2001511162	T2	20010807	JP 1998-533584	19980206
US 6245901	B1	20010612	US 1998-24532	19980217

PRIORITY APPLN. INFO.: DK 1997-135 A 19970206
WO 1998-DK46 W 19980206

AB The present invention relates to protein-polymer conjugates in which one or more attachment groups for coupling polymeric mols. on the surface of the protein structure have been added and/or removed, a method for prepg. protein-polymer conjugates of the invention, the use of said conjugated for reducing the immunogenicity and allergenicity, and compns. comprising said conjugate for use in pharmaceuticals, skin care products, food and feed. Thus, the proteins are modified by conservative substitution of Lys for Arg, Asp or Glu for Asn or Gln, or vice-versa to provide more attachment sites away from the functional site(s) and to remove attachment sites in the vicinity of the functional site(s). Then, using known methods, polymeric materials such as PEG are attached to the modified protein. Humicola lanuginosa lipase was mutagenized to prep. 87K, 254K-lipase. This mutant was conjugated to PEG 15,000 to prep. a lipase with reduced antigenicity.

IC ICM C12N009-96
ICS C11D003-386; A61K047-48

CC 6-3 (General Biochemistry)
Section cross-reference(s): 15, 17, 62, 63

ST protein polymer conjugate immunogenicity **allergenicity**

IT Enzymes, biological studies
Proteins, specific or class
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic

use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(conjugates, with polymers; protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT Polymers, biological studies
Polyoxyalkylenes, biological studies
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(conjugates, with proteins; protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT Enzymes, biological studies
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(lipolytic, conjugates, with polymers; protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT Rennets
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(microbial, conjugates, with polymers; protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT Skin
(products for care of; protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT **Allergy**
Detergents
Feed
Food
Immunity
(protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT 211507-40-3DP, conjugates, with polymers 211507-42-5DP, conjugates, with polymers 211507-43-6DP, conjugates, with polymers 211507-45-8DP, conjugates, with polymers 211507-56-1DP, conjugates, with polymers 211507-61-8DP, conjugates, with polymers 211507-65-2DP, conjugates, with polymers 211507-68-5DP, conjugates, with polymers
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(amino acid sequence; protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT 56-84-8, L-Aspartic acid, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

IT 9000-07-1DP, Carrageenan, conjugates, with proteins 9000-30-0DP, Guar gum, conjugates, with proteins 9000-69-5DP, Pectin, conjugates, with proteins 9001-62-1DP, Lipolase, conjugates, with polymers 9001-92-7DP, Protease, conjugates, with polymers 9002-89-5DP, PVA, conjugates, with proteins 9003-20-7DP, PVA, conjugates, with proteins 9003-39-8DP, Poly(vinylpyrrolidone), conjugates, with proteins 9004-32-4DP, conjugates, with proteins 9004-34-6DP, Cellulose, conjugates, with

proteins, biological studies **9004-54-0DP**, **Dextran**, conjugates, with proteins, biological studies 9004-57-3DP, Ethylcellulose, conjugates, with proteins 9004-62-0DP, Hydroxyethylcellulose, conjugates, with proteins 9004-64-2DP, Hydroxypropylcellulose, conjugates, with proteins 9004-67-5DP, Methylcellulose, conjugates, with proteins 9005-25-8DP, Starch, conjugates, with proteins, biological studies 9005-27-0DP, Hydroxyethylstarch, conjugates, with proteins 9005-32-7DP, Alginic acid, conjugates, with proteins 9005-79-2DP, Glycogen, conjugates, with proteins, biological studies 9005-80-5DP, Inulin, conjugates, with proteins 9012-36-6DP, Agarose, conjugates, with proteins 9012-76-4DP, Chitosan, hydrolyzates, conjugates with proteins 9013-19-8DP, Isomerase, conjugates, with polymers 9014-01-1DP, Subtilisin, conjugates, with polymers 9027-41-2DP, Hydrolase, conjugates, with polymers 9044-05-7DP, Carboxymethyldextran, conjugates, with proteins 9047-61-4DP, Transferase, conjugates, with polymers 9049-76-7DP, Hydroxypropylstarch, conjugates, with proteins 9054-89-1DP, Superoxide dismutase, conjugates, with polymers 9055-15-6DP, Oxidoreductase, conjugates, with polymers 9057-02-7DP, Pullulan, conjugates, with proteins 11138-66-2DP, Xanthan gum, conjugates, with proteins 25322-68-3DP, conjugates, with proteins 37259-58-8DP, Proteinase R, conjugates, with polymers 37318-49-3DP, Protein disulfide isomerase, conjugates, with polymers 39450-01-6DP, conjugates, with polymers 80146-85-6DP, Transglutaminase, conjugates, with polymers 80498-15-3DP, Laccase, conjugates, with polymers
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(protein-polymer conjugates with reduced immunogenicity and **allergenicity**)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:699181 HCAPLUS
DOCUMENT NUMBER: 127:345725
TITLE: Dietary fiber compositions and their uses
INVENTOR(S): Kaneuchi, Osamu; Agata, Kazue
PATENT ASSIGNEE(S): Kirin Brewery Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09278664	A2	19971028	JP 1996-83778	19960405

AB Title compns., useful as foods, beverages, intestinal mucosa enhancers, defecation promoters, and intestinal function improvers, contain (a) protein- and insol. dietary fiber-contg. substances from barley germ or germinated rice seed and (b) water-sol. dietary fibers. Wet beer lees was pressed, sieved, dried, and pulverized to give a substance contg. protein 53.4, lipid 12.6, ash 2.0, and dietary fiber 32.1 wt.%. A mixt. of the substance and polydextrose (5:3) was added to a feed at 16% and fed to rats for 10 days to result in increase of feces dry wt. and intestinal mucosa protein and inhibition of diarrhea.
IC ICM A61K035-78

ICS A61K035-78; A23G003-00; A23K001-16; A23L001-30; A23L002-52; A23L002-02; A61K031-715; A61K031-78
CC 18-4 (Animal Nutrition)
Section cross-reference(s): **17**
ST dietary fiber barley rice germ; **food** dietary fiber barley rice; beverage dietary fiber barley rice; intestine function improvement dietary fiber; defecation promotion dietary fiber compn; **diarrhea** inhibition dietary fiber compn; protein fiber barley rice germ
IT **Antidiarrheals**
(dietary fiber compns. contg. sol. dietary fibers and protein-fiber mixts. from barley and rice germ)
IT **Polysaccharides**, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(sulfated; dietary fiber compns. contg. sol. dietary fibers and protein-fiber mixts. from barley or rice germ)
IT 9003-04-7, Sodium polyacrylate 9004-34-6, Cellulose, biological studies 9005-53-2, Lignin, biological studies 9011-18-1, **Dextran** sodium sulfate 9034-32-6, Hemicellulose 68424-04-4, Polydextrose
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(dietary fiber compns. contg. sol. dietary fibers and protein-fiber mixts. from barley or rice germ)

L22 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:476920 HCAPLUS
DOCUMENT NUMBER: 125:118060
TITLE: Enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochemical industry applications
INVENTOR(S): Olsen, Arne Agerlin; Hansen, Lars Bo L.; Beck, Thomas Christian
PATENT ASSIGNEE(S): Novo Nordisk A/s, Den.
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9617929	A1	19960613	WO 1995-DK497	19951207
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2206852	AA	19960613	CA 1995-2206852	19951207
AU 9641144	A1	19960626	AU 1996-41144	19951207
AU 697440	B2	19981008		
EP 796324	A1	19970924	EP 1995-939230	19951207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CN 1168694	A	19971224	CN 1995-196667	19951207
BR 9509976	A	19980609	BR 1995-9976	19951207

JP 10510516	T2	19981013	JP 1995-517266	19951207
US 5856451	A	19990105	US 1997-836293	19970512
FI 9702443	A	19970609	FI 1997-2443	19970609
US 5981718	A	19991109	US 1998-150891	19980910
AU 9910080	A1	19990401	AU 1999-10080	19990108
AU 731076	B2	20010322		
US 6114509	A	20000905	US 1999-405311	19990920
US 6201110	B1	20010313	US 2000-610751	20000706

PRIORITY APPLN. INFO.:

DK 1994-1395	A	19941207
DK 1994-1396	A	19941207
DK 1994-1397	A	19941207
DK 1994-1398	A	19941207
DK 1994-1399	A	19941207
DK 1994-1400	A	19941207
DK 1994-1401	A	19941207
WO 1994-DK497	A1	19941207
AU 1996-41144	A3	19951207
WO 1995-DK497	W	19951207
US 1997-836293	A1	19970512
US 1998-150891	A1	19980910
US 1999-405311	A1	19990920

AB The invention relates to modified polypeptides with reduced allergenicity comprising a parent polypeptide with a mol. wt. from between 10 kDa and 100 kDa conjugated to a polymer with a mol. wt. (Mr) in the range of 1 kDa and 60 kDa. The modified polypeptide are produced using a process including the step of conjugating from 1 to 30 polymer mols. with the parent polypeptide. Further the invention relates to compns. comprising said polypeptides and further ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, household article, agrochems., personal care products, cosmetics, toiletries, oral and dermal pharmaceuticals, compn. for treating textiles, and compns. used for manufg. food and feed. Finally the invention is directed to uses of polypeptides with reduced allergenicity or compns. thereof for reducing the allergenicity of products for a vast no. of industrial applications.

IC ICM C12N009-96
ICS C12N011-08; C07K017-08

ICA C11D003-386; A61K007-48

CC 46-1 (Surface Active Agents and Detergents)
Section cross-reference(s): 5, 7, 17, 40, 62, 63

ST enzyme polymer conjugates reduced **allergenicity** industry; detergent enzyme polymer conjugate reduced **allergenicity**; cosmetic enzyme polymer conjugate reduced **allergenicity**; pharmaceutical enzyme polymer conjugate reduced **allergenicity**; **food** enzyme polymer conjugate reduced **allergenicity**; agrochem enzyme polymer conjugate reduced **allergenicity**

IT **Allergy**
(**allergenicity**; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Pharmaceutical dosage forms
(dermal; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Agrochemicals
Chewing gum
Cosmetics
Dentifrices
Detergents
Hair preparations

Mouthwashes
Shampoos
(enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Balsams
Soaps
RL: AGR (Agricultural use); FFD (Food or feed use); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT **Feed**
Food
(manufg.; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Alcohols, uses
RL: AGR (Agricultural use); FFD (Food or feed use); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyvinyl, conjugates with 10-100-kilodalton protein; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Skin
(prepns.; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Biocides
(protein conjugates with 1-60-kilodalton polymer; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Textiles
(treating; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Shaving preparations
(aerosol foams, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Cosmetics
(baby oils, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Cooking
(baking, products; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Soaps
RL: AGR (Agricultural use); FFD (Food or feed use); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bars, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical,

food, textile, and agrochem. industry applications)

IT Cosmetics
(cleansing creams, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Hair preparations
(conditioners, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Enzymes
Proteins, specific or class
RL: AGR (Agricultural use); FFD (Food or feed use); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates, with 1-60-kilodalton polymer; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Biopolymers
Polymers, uses
Polyoxyalkylenes, uses
RL: AGR (Agricultural use); FFD (Food or feed use); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates, with 10-100-kilodalton protein; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Lenses
(contact, cleaner; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Cosmetics
Shaving preparations
(creams, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Hair preparations
(dyes, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Cosmetics
(hand creams, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Pharmaceutical dosage forms
(oral, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

IT Carboxylic acids, uses
RL: AGR (Agricultural use); FFD (Food or feed use); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(poly-, esters, conjugates with 10-100-kilodalton protein; enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**

, textile, and agrochem. industry applications)
IT Hair preparations
(tonics, enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)
IT 9000-07-1DP, Carrageenin, conjugates with 10-100-kilodalton protein
9000-30-0DP, Guar gum, conjugates with 10-100-kilodalton protein
9000-69-5DP, Pectin, conjugates with 10-100-kilodalton protein
9001-02-9DP, Carbohydrase, conjugates with 1-60-kilodalton polymer
9001-62-1DP, Lipase, conjugates with 1-60-kilodalton polymer
9001-92-7DP, Proteinase, conjugates with 1-60-kilodalton polymer
9003-39-8DP, conjugates with 10-100-kilodalton protein 9004-34-6DP, Cellulose, conjugates with 10-100-kilodalton protein **9004-54-0DP**, **Dextran**, conjugates with 10-100-kilodalton protein
9004-74-4DP, Methoxypolyethylene glycol, conjugates with 10-100-kilodalton protein 9005-25-8DP, Starch, conjugates with 10-100-kilodalton protein
9005-32-7DP, Alginic acid, conjugates with 10-100-kilodalton protein
9005-79-2DP, Glycogen, conjugates with 10-100-kilodalton protein
9005-80-5DP, Inulin, conjugates with 10-100-kilodalton protein
9012-76-4DP, Chitosan, conjugates with 10-100-kilodalton protein
9047-61-4DP, Transferase, conjugates with 1-60-kilodalton polymer
9055-15-6DP, Oxidoreductase, conjugates with 1-60-kilodalton polymer
9057-02-7DP, Pullulan, conjugates with 10-100-kilodalton protein
11138-66-2DP, Xanthan gum, conjugates with 10-100-kilodalton protein
25322-68-3DP, PEG, conjugates with 10-100-kilodalton protein
25322-68-3DP, Peg, derivs., conjugates with 10-100-kilodalton protein
25322-69-4DP, Polypropylene glycol, conjugates with 10-100-kilodalton protein 37341-58-5DP, Phytase, conjugates with 1-60-kilodalton polymer
RL: AGR (Agricultural use); **FFD (Food or feed use)**; SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(enzyme-polymer conjugates with reduced **allergenicity** for household detergent, toiletry, cosmetic, pharmaceutical, **food**, textile, and agrochem. industry applications)

L22 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:288149 HCAPLUS
DOCUMENT NUMBER: 124:298999
TITLE: Compositions containing hemicelluloses and polyphenols for treating gastrointestinal disorders
INVENTOR(S): Richards, Geoffrey N.
PATENT ASSIGNEE(S): University of Montana, USA
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9603150	A1	19960208	WO 1995-US9230	19950721
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5614501	A	19970325	US 1995-434492	19950504
EP 797451	A2	19971001	EP 1995-927341	19950721
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 6087092	A	20000711	US 1999-356759	19990719

PRIORITY APPLN. INFO.: US 1994-278414 A 19940721
WO 1995-US9230 W 19950721

AB Compns. contg. hemicelluloses in combination with polyphenols, methods of prepg. the compns., and methods of treating humans or animals with the compn. are provided. Also provided is a method for increasing growth rate, improving feed efficiency and decreasing scour after weaning in an animal by administering an effective amt. of the compn. to the animal. The hemicelluloses preferably are not consumed by human alimentary enzymes or harmful bacteria, in the gastrointestinal tract. The polyphenols preferably decrease the amt. of harmful bacteria in the gastrointestinal tract. The compns. can optionally contain a carrier or be used as a feed addn. and are administered to humans or other animals in an amt. sufficient to treat the gastrointestinal disorder.

IC ICM A61K045-06
ICS A61K031-72

ICI A61K031-72, A61K031-05

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 18

ST hemicellulose polyphenol gastrointestinal disorder treatment; **feed** additive dietary fiber polyphenol

IT Animal growth
Canis familiaris
Cattle
Feed
Felis catus
Horse
Poultry
Swine
(**feed** additives contg. hemicelluloses and polyphenols for increasing **feed** efficiency)

IT Bifidobacterium
Clostridium
(**food** additive contg. hemicelluloses and polyphenols for increasing relative ratio of bifidobacteria and clostridia)

IT **Diarrhea**
Dietary fiber
(oral compns. contg. hemicelluloses and polyphenols for treating gastrointestinal disorders)

IT 480-18-2, Taxifolin 9005-80-5, Inulin 9034-32-6, Hemicellulose 9036-66-2, Arabinogalactan 9040-27-1, Arabinoxylan **11078-30-1**, **Galactomannan** 38522-73-5, Catecholine
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral compns. contg. hemicelluloses and polyphenols for treating gastrointestinal disorders)

L24 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:574972 HCAPLUS
DOCUMENT NUMBER: 137:124619
TITLE: Rehydration compositions containing electrolytes and nutrients
INVENTOR(S): Hageman, Robert Johan Joseph; Verlaan, George; Smeets, Rudolf Leonardus Lodewijk
PATENT ASSIGNEE(S): Nutricia N.V., Neth.
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002058792	A2	20020801	WO 2002-NL63	20020128

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-770773 A 20010126

AB The invention relates to a fluid that can be used for preventing or treating hypohydration and the secondary consequences thereof. The fluid comprises one or more carbohydrates and minerals and is further characterized by a low osmolarity. The invention further relates to the use of such a fluid for medical, dietetic and other applications. A sportsdrink contained glucose 8, fructose 6, maltodextrin 20, glycerol 1, taurine 1, betaine 1, caffeine 0.1, sodium phosphate 0.5, sodium chloride 0.1, and potassium citrate 0.3 g per serving 567 mL.

IC ICM A61P001-12
ICS A61K031-70; A61K031-35

CC 18-7 (Animal Nutrition)
Section cross-reference(s): 63

IT Beverages
Cystic fibrosis
Dehydration, physiological
Diarrhea
Exercise
Fruit and vegetable juices
Guarana (Paullinia cupana)
Intestine, disease
(rehydration drinks contg. electrolytes and nutrients)

IT Betaines
Carbohydrates, biological studies
Monosaccharides
Oligosaccharides, biological studies
Polysaccharides, biological studies
Tocopherols
Vitamins
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(rehydration drinks contg. electrolytes and nutrients)

L24 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:574905 HCAPLUS
DOCUMENT NUMBER: 137:129822
TITLE: Method of preparing pharmaceutical or dietary compositions for conveying labile substances into the intestine
INVENTOR(S): Cecchetti, Sergio; Gatti, Valter
PATENT ASSIGNEE(S): Giuliani S.P.A., Italy
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002058673	A1	20020801	WO 2002-EP515	20020117

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: IT 2001-MI141 A 20010126

AB Method of prepn. of pharmaceutical or dietary compns. comprising a polysaccharide, a phospholipid and an active principle, characterized in that it comprises the following stages: (a) dry mixing of the said polysaccharide, phospholipid and active principle; (b) adding an aq. soln. contg. a pH buffer, in a smaller amt. by wt. relative to the dry mixt. obtained in the said stage (a) and in a ratio not greater than 1:3, thus forming moist granules; (c) drying of the said moist granules, thus obtaining the said compns. in the form of powder. Thus a powder contg. a lipase inhibiting active substance was prepd. using a Lodige-type mixer and fluidized-bed drying. The ingredients were (kg): oat fiber 100; hydrolized protein 60; Vitamin E (50%) 2; beta carotene (10%) 1; chromium-contg. yeast (0.3); maltodextrin 50; soy lecithin 50; citric acid/sodium citrate buffer pH = 4-5 30 L;.

IC ICM A61K009-16

CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 17

IT Antidepressants
Dietary fiber
Drying
Hypercholesterolemia
Intestine, disease
Mixing
Obesity
Yeast
pH
(method of prepg. pharmaceutical or dietary compns. for conveying labile substances into **intestine**)

IT Cardiolipins
Lysophospholipids
Natural products, pharmaceutical
Phosphatidylethanolamines, biological studies
Phosphatidylglycerols
Phosphatidylinositols
Phosphatidylserines
Polysaccharides, biological studies
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method of prepg. pharmaceutical or dietary compns. for conveying labile substances into intestine)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:566273 HCAPLUS
DOCUMENT NUMBER: 137:108623
TITLE: Polysaccharides extracted from seaweeds, their manufacture, and use for thickeners, foods, cosmetics, and pharmaceuticals
INVENTOR(S): Morikawa, Kazuhiro; Yamamoto, Yukiko
PATENT ASSIGNEE(S): Daito K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002212201	A2	20020731	JP 2001-298872	20010928

PRIORITY APPLN. INFO.: JP 2000-350484 A 20001117

AB Polysaccharides whose aq. 0.5-2 wt.% solns. show thixotropic properties at 10-40.degree. are manufd. by extn. of seaweeds with hot water at 60-100.degree. without alkali treatment, and addn. of org. solvents to the exts. at 10-40.degree. for pptn. of polysaccharides. Gracilaria verrucosa (100 g) was extd. with hot water, filtered, the filtrate was mixed with isopropanol, and centrifuged to give 23.1 g polysaccharides having av. mol. wt. 177,000. A salad dressing contg. 0.5 wt.% of the polysaccharides showed good emulsion stability. The polysaccharides showed hypoglycemic, hypocholesterolemic, and hypolipemic effects in mice and rats.

IC ICM C08B037-00
ICS A21D002-18; A21D013-00; A23C009-13; A23C009-152; A23G009-02; A23L001-05; A23L001-06; A23L001-22; A23L001-24; A23L001-30; A23L001-39; A23L002-52; A61K007-00; A61K031-715; A61P001-10; A61P001-14; A61P003-06; A61P003-10; A61P043-00

CC 17-6 (Food and Feed Chemistry)
Section cross-reference(s): 1, 10, 62, 63

IT **Intestine, disease**
(constipation, treatment of; extn. of polysaccharides from seaweeds for thickeners, foods, cosmetics, and pharmaceuticals)

IT **Polysaccharides**, biological studies
RL: COS (Cosmetic use); **FFD (Food or feed use)**; PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(galactose-contg.; extn. of **polysaccharides** from seaweeds for thickeners, foods, cosmetics, and pharmaceuticals)

IT Caseins, biological studies
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(hydrolyzates, phosphopeptides, -degrdn. inhibitors for foods; extn. of **polysaccharides** from seaweeds for thickeners, foods, cosmetics, and pharmaceuticals)

IT 59-23-4DP, Galactose, **polysaccharides**
RL: COS (Cosmetic use); **FFD (Food or feed use)**; PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(extn. of **polysaccharides** from seaweeds for thickeners, foods, cosmetics, and pharmaceuticals)

IT 7439-89-6, Iron, biological studies 7440-70-2, Calcium, biological studies
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(foods contg.; extn. of **polysaccharides** from seaweeds for thickeners, foods, cosmetics, and pharmaceuticals)

IT 9001-78-9, Alkaline phosphatase

RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(inhibitors for foods; extn. of **polysaccharides** from seaweeds for thickeners, foods, cosmetics, and pharmaceuticals)

L24 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:365750 HCAPLUS
DOCUMENT NUMBER: 136:374841
TITLE: Gas-releasing compounds on swelling substances for oral delivery of drugs and dietary supplements
PATENT ASSIGNEE(S): Easyway Ag, Germany
SOURCE: Ger. Gebrauchsmusterschrift, 15 pp.
CODEN: GGXXFR
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 20120348	U1	20020516	DE 2001-20120348	20011217

AB The invention concerns org. and inorg. compds. that release gas, esp. carbon dioxide in the gastric juice; the compds. are applied onto swelling, spongy substances, e.g. glucomannan; upon gas release the carrier is floating in the fluid. The aim of the gas formation is to avoid constipation.
IC ICM A61K033-10
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 18
IT **Intestine, disease**
(constipation, avoidance of; gas-releasing compds. on swelling substances for oral delivery of drugs and dietary supplements)
IT **11078-31-2, Glucomannan**
RL: **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gas-releasing compds. on swelling substances for oral delivery of drugs and dietary supplements)

L24 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:693649 HCAPLUS
DOCUMENT NUMBER: 135:238941
TITLE: Intestinal uptake of macromolecules
INVENTOR(S): Niewold, Theodoor Abram; Van Der Meulen, Jan; Nabuurs, Marius Joseph Antonius
PATENT ASSIGNEE(S): Id-Lelystad, Instituut voor Dierhouderij en Diergezondheid B.V., Neth.
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001069238	A2	20010920	WO 2001-NL203	20010312
WO 2001069238	A3	20020207		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,

RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2000-200895 A 20000313

AB The invention relates to the field of gut-(patho)physiol. and is in particular related to the intestinal uptake of fluids, electrolytes and (macro)mols. The invention provides a method for detg. mol. transport through an intestinal wall or segment thereof comprising up- or down-regulating oxygen supply to said wall or segment. Herewith, the invention provides a methodol. for evaluation of the effects of (components of) foods, drinks and specialty foods or drinks related to various different hemodynamic states of a person who consumes the food or drink. The effect of DMSO was measured in samples of intestinal tissue in a diffusion chamber using the horseradish peroxidase method. DMSO increased permeability in a dose-dependent manner.

IC ICM G01N033-48

CC 9-2 (Biochemical Methods)
Section cross-reference(s): 13, 17, 18

IT **Disease**, animal
(bioassay specialty food for; **intestinal** uptake of macromols.)

IT **Polysaccharides**, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hydrolyzates; intestinal uptake of macromols.)

IT **Intestine**, **disease**
(ischemia; **intestinal** uptake of macromols.)

L24 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:587503 HCAPLUS
DOCUMENT NUMBER: 135:287863
TITLE: Chlorophyll-containing biologically active additive
INVENTOR(S): Nekrasova, V. B.; Nikitina, T. V.; Kurnygina, V. T.
PATENT ASSIGNEE(S): Obshchestvo s Ogranichennoi Otvetstvennost'yu "Fitolon", Russia
SOURCE: Russ., No pp. given
CODEN: RUXXE7
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2147203	C1	20000410	RU 1998-117894	19980929

AB A biol. active additive for use in dietetic food, cosmetics and drugs comprises a conc. of chlorophyll derivs., adaptogens and/or detoxicants as macro- and microelements, and accompanying agents wherein chlorophyll derivs. account for 33,000 mg%, with accompanying agents: carotenoids up to 1500 mg%, vitamin E up to 360 mg% and fatty acids up to 30%. The biol. active additive further comprises plant and animal raw material. This makes it possible to prep. an additive which has optimally balanced components and possesses antiseptic adaptogenic and/or detoxifying properties.

IC ICM A23L001-30
ICS A21D002-36; A23C009-152; A23L002-00; A61K007-00

CC 17-6 (Food and Feed Chemistry)

Section cross-reference(s): 62, 63
IT Amino acids, biological studies
Carbohydrates, biological studies
Carotenes, biological studies
Chlorides, biological studies
Fats and Glyceridic oils, biological studies
Fatty acids, biological studies
Flavonoids
Glycosides
Pheophorbides
Polysaccharides, biological studies
Steroids, biological studies
Vitamins
RL: BUU (Biological use, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chlorophyll-contg. biol. active additive)
IT **Intestine, disease**
(constipation; chlorophyll-contg. biol. active additive)

L24 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:452866 HCAPLUS
DOCUMENT NUMBER: 135:71250
TITLE: Novel Helicobacter pylori-binding substances and use thereof
INVENTOR(S): Karlsson, Karl-anders; Leonardsson, Irene; Teneberg, Susann; Angstroem, Jonas
PATENT ASSIGNEE(S): A+ Science Invest AB, Swed.
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001043751	A1	20010621	WO 2000-SE2567	20001215
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1237558	A1	20020911	EP 2000-987920	20001215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
NO 2002002890	A	20020815	NO 2002-2890	20020617

PRIORITY APPLN. INFO.: SE 1999-4581 A 19991215
WO 2000-SE2567 W 20001215

OTHER SOURCE(S): MARPAT 135:71250
AB Helicobacter pylori-binding substances comprising Gal.beta.3GlcNAc or Gal.beta.3GalNAc are described, as well as use thereof in pharmaceutical compns. and food-stuff, and methods for treatment of conditions due to the presence of Helicobacter pylori. Also use of said substance for the identification of bacterial adhesions, for the prodn. of a vaccine against Helicobacter pylori, for diagnosis of Helicobacter pylori infections, for

typing of Helicobacter pylori, for identification of Helicobacter pylori binding substances and for inhibition of the binding of Helicobacter pylori is described.

IC ICM A61K031-702
ICS A61P001-04; A61P031-04

CC 1-5 (Pharmacology)
Section cross-reference(s): 10, 15, 17, 33, 63

IT **Polysaccharides**, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates with Helicobacter pylori-binding compds.; novel Helicobacter pylori-binding substances and use thereof for treatment of diseases of gastrointestinal tract and for food use)

IT **Intestine, disease**
(duodenum, ulcer; novel Helicobacter pylori-binding substances and use thereof for treatment of **diseases** of gastrointestinal tract and for food use)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:136954 HCAPLUS
DOCUMENT NUMBER: 132:179895
TITLE: Oral compositions for improvement of intestinal environment
INVENTOR(S): Meguro, Shinichi; Shimotoyotome, Rei; Suzuki, Junko; Fukunaga, Tomoko; Hase, Tadashi; Tokimitsu, Ichiro
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000060483	A2	20000229	JP 1998-242032	19980827

AB The compns. contain acidic polysaccharides and spore-forming lactic acid bacteria. Intake of a beverage contg. spore-forming lactic acid bacteria (108 cells) and 1 g chondroitin sulfate (ND 3482) once a day for 1 wk was effective for treatment of constipation in humans.

IC ICM A23L001-28
ICS C12N001-00

CC 17-14 (Food and Feed Chemistry)
Section cross-reference(s): 18, 63

IT **Polysaccharides**, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acidic; oral compns. contg. acidic **polysaccharides** and spore-forming lactic acid bacteria for improvement of intestinal environment)

IT **Intestine, disease**
(constipation; oral compns. contg. acidic polysaccharides and spore-forming lactic acid bacteria for improvement of **intestinal** environment)

IT 9000-69-5, Pectin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(AF 701; oral compns. contg. acidic **polysaccharides** and spore-forming lactic acid bacteria for improvement of intestinal environment)

IT 9082-07-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ND 3482; oral compns. contg. acidic **polysaccharides** and spore-forming lactic acid bacteria for improvement of intestinal environment)

IT 9000-07-1, Carrageenan
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Sea-Pi Gum FA; oral compns. contg. acidic **polysaccharides** and spore-forming lactic acid bacteria for improvement of intestinal environment)

IT 9005-38-3, Sodium alginate
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ULV-L 5; oral compns. contg. acidic **polysaccharides** and spore-forming lactic acid bacteria for improvement of intestinal environment)

IT 9005-32-7, Alginic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral compns. contg. acidic **polysaccharides** and spore-forming lactic acid bacteria for improvement of intestinal environment)

L24 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:710487 HCAPLUS
DOCUMENT NUMBER: 132:207261
TITLE: Non-starch polysaccharides in pig diets and their influence on **intestinal** microflora, digestive physiology and enteric **disease**
AUTHOR(S): Pluske, J. R.; Pethick, D. W.; Durmic, Z.; Hampson, D. J.; Mullan, B. P.
CORPORATE SOURCE: Division of Veterinary and Biomedical Sciences, Murdoch University, Murdoch, WA, 6150, Australia
SOURCE: Recent Advances in Animal Nutrition (1999) 189-226
CODEN: RAANES; ISSN: 0269-5642
PUBLISHER: Nottingham University Press
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 129 refs. The topics include digestive physiol. role of dietary fiber, intestinal microflora of pigs, physiol. effects of non-starch polysaccharides (NSP) in the swine large intestine, effects on NSP on intestinal content viscosity, non-nutritional effects of NSP, and relation of NSP and dietary fiber intake to swine dysentery occurrence.
CC 18-0 (Animal Nutrition)
Section cross-reference(s): 14
IT Dietary fiber
Dysentery
Intestinal bacteria
Nutrition, animal
Swine

(dietary non-starch polysaccharides and fiber in pig diets and their influence on **intestinal** microflora, digestive physiol. and dysenteric **disease**)

IT **Polysaccharides**, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); **FFD (Food or feed use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(dietary non-starch **polysaccharides** and fiber in pig diets and their influence on **intestinal** microflora, digestive physiol. and dysenteric **disease**)

REFERENCE COUNT: 129 THERE ARE 129 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:429475 HCAPLUS
DOCUMENT NUMBER: 131:184328
TITLE: Dietary nucleotides augment dextran sulfate sodium-induced distal colitis in rats
AUTHOR(S): Sukumar, Prabha; Loo, Alice; Adolphe, Renald; Nandi, Jyotirmoy; Oler, Albert; Levine, Robert A.
CORPORATE SOURCE: Division of Gastroenterology, Department of Medicine, State University of New York Health Science Center, Syracuse, NY, 13210, USA
SOURCE: Journal of Nutrition (1999), 129(7), 1377-1381
CODEN: JONUAI; ISSN: 0022-3166
PUBLISHER: American Society for Nutritional Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Enteral and parenteral supplementation with nucleotides (NT) accelerates healing of small bowel ulcers in rats with indomethacin-induced ileitis. Dietary NT supplementation may similarly affect ulcer healing in dextran sulfate sodium (DSS)-induced colitis in rats. Male Sprague-Dawley rats were fed nucleotide-free (NF) or NT-supplemented (NS) diets. After 2 days of prefeeding, colitis was induced by 40 g DSS/L in drinking water for 3 days, followed by tap water. Rats were killed at 7 or 12 days after induction of colitis. Nontreated rats were used as controls. The length of colon was measured and evaluated by histol. scores. Colonic myeloperoxidase (MPO) activity was detd. In sep. expts. the interleukin-1.beta. (IL-1.beta.) levels were detd. in rectal dialyzates and blood plasma of rats at 0, 4, 7, and 12 days. Ulceration predominated in the distal colon in DSS-treated rats. There was no significant difference between the histol. scores of NF and NS groups at 7 or 12 days. The MPO activity at 7 and 12 days was higher in the NS compared to the NF group (1013.+-.172 vs. 409.9.+-.103.2 units/min/g colon at 7 days; 471.9.+-.112.4 vs. 223.6.+-.21.6 at 12 days). The IL-1.beta. concns. in rectal dialyzates were higher at 7 days in both groups compared to 0 and 4 days. At 12 days the IL-1.beta. levels continued to be elevated in the NS group and were greater than in the NF group. The data on the proinflammatory cytokine and MPO activity strongly suggest that NT supplementation aggravates the severity of DSS-induced colitis in rats.

CC 18-3 (Animal Nutrition)
Section cross-reference(s): 14

IT **Intestine, disease**
(colitis; dietary nucleotides augment dextran sulfate sodium-induced distal colitis in rats)

IT Nucleotides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)

(dietary nucleotides augment **dextran** sulfate sodium-induced distal colitis in rats)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:479369 HCAPLUS
DOCUMENT NUMBER: 129:94714
TITLE: Oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**
INVENTOR(S): Vuorenmaa, Juhani; Virkki, Markku; Jukola, Elias; Laureus, Marko; Jatila, Hanna
PATENT ASSIGNEE(S): Suomen Rehu Oy, Finland
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9827829	A1	19980702	WO 1997-FI831	19971222
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9878699	A1	19980717	AU 1998-78699	19971222
EP 946108	A1	19991006	EP 1997-948938	19971222
R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT				
LV 12340	B	19991220	LV 1999-100	19990618
NO 9903101	A	19990823	NO 1999-3101	19990622
LT 4656	B	20000525	LT 1999-77	19990622
US 6387420	B1	20020514	US 2001-862389	20010521
US 2002061345	A1	20020523		

PRIORITY APPLN. INFO.:
FI 1996-5192 A 19961223
WO 1997-FI831 W 19971222
US 1999-331708 B2 19990818

AB A food or feed additive is produced by treating plant, animal and(or) microbial products that contain oligosaccharides and(or) polysaccharides hydrolytically so that the cell wall structure is opened. The food or feed additive is used to prevent gastric disorders and intestinal diseases. Thus, a fraction prepd. from bakers' yeast inhibited the adhesion of Escherichia coli to the mucous membrane of pigs by 70-90%.

IC ICM A23K001-00
ICS A23L001-09

CC 17-6 (Food and Feed Chemistry)
Section cross-reference(s): 18

ST food additive oligosaccharide polysaccharide **intestine**; gastric **disorder** food feed additive; **intestine disease** food feed additive; feed additive oligosaccharide polysaccharide **intestine**

IT Hydrolysis
(acid; oligosaccharide- or polysaccharide-rich hydrolytically treated

food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Escherichia coli
(adhesion to mucous membrane; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Hydrolysis
(base; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Blood
(dried; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Hydrolysis
(enzymic; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Swine
(feeding expt. with; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Yeast
Yeast
(fodder; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Pressure
(hydrostatic; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Adhesion, biological
(of bacteria to mucous membrane; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Animal
Bakers' yeast
Cell wall
Cell wall
Detergents
Diarrhea
Feed additives
Food additives
Intestinal bacteria
Intestine, disease
Larch (Larix)
Microorganism
Mucous membrane
Plant (Embryophyta)
Stomach, **disease**
Sugar beet
Yeast
(oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)
IT Oligosaccharides, biological studies
Polysaccharides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic

use); BIOL (Biological study); USES (Uses)
(oligosaccharide- or **polysaccharide**-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)

IT Feeding experiment
(with pigs; oligosaccharide- or polysaccharide-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)

IT 9001-73-4, Papain 9001-99-4, Ribonuclease
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(oligosaccharide- or **polysaccharide**-rich hydrolytically treated food or feed additive to prevent gastric **disorders** and **intestinal diseases**)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:756390 HCAPLUS
DOCUMENT NUMBER: 123:142666
TITLE: Carbohydrate-linked short-chain fatty acids for delivery to the colon.
INVENTOR(S): Anisson, Geoffrey; Topping, David; Illman, Richard
PATENT ASSIGNEE(S): Commonwealth Scientific and Industrial Research Organisation, Australia
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9513801	A1	19950526	WO 1994-AU713	19941117
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2176719	AA	19950526	CA 1994-2176719	19941117
AU 9481368	A1	19950606	AU 1994-81368	19941117
AU 695906	B2	19980827		
EP 730447	A1	19960911	EP 1995-900575	19941117
EP 730447	B1	20020220		
R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 09505060	T2	19970520	JP 1994-514114	19941117
US 5840860	A	19981124	US 1996-646294	19960905

PRIORITY APPLN. INFO.: AU 1993-2454 A 19931117
WO 1994-AU713 W 19941117

AB Delivery to the colon of fatty acids, esp. short-chain fatty acids (SCFA), can be effected by covalently linking SCFA to a carrier, that is preferably a carbohydrate, by an ester link. The SCFA is protected by its link with the carbohydrate through the small intestine, and where the carbohydrate is digestible in the small intestine such as a digestible starch, the starch can also be protected from digestion in the small intestine by the substitution. Levels of SCFA such as acetate, propionate and butyrate may be elevated to have beneficial effects in the prevention of colonic disorders, such as rectal cancer, diverticulitis, colitis,

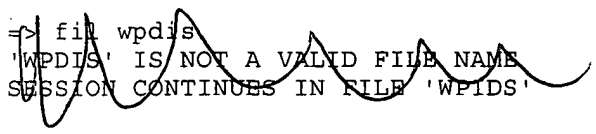
diarrhea and constipation.
IC ICM A61K031-19
ICS A61K047-36; A61K047-38
CC 18-5 (Animal Nutrition)
Section cross-reference(s): 63
IT Oligosaccharides
Polysaccharides, biological studies
RL: **FFD (Food or feed use)**; BIOL (Biological study); USES (Uses)
(bound to fatty acids; carbohydrate-linked short-chain fatty acids for delivery to the colon)
IT **Intestine, disease**
(constipation, carbohydrate-linked short-chain fatty acids for colon therapy)
IT **Intestine, disease**
(diverticulitis, carbohydrate-linked short-chain fatty acids for colon therapy)

L24 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:235236 HCAPLUS
DOCUMENT NUMBER: 122:8815
TITLE: Liver function disorder-improving and preventing compositions containing low-molecular weight galactomannan
INVENTOR(S): Ishihara, Noryuki; Ookubo, Tsutomu
PATENT ASSIGNEE(S): Taiyo Kagaku Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06256197	A2	19940913	JP 1993-67499	19930302

AB The title compns. contain low-mol. wt. galactomannan, .gtoreq.80% of which is a linear chain of 30-200 mannose units. A drink contg. low-mol. wt. galactomannan (manufd. from guar gum with .beta.-mannase) was ingested by volunteers to show less formation of ammonia, indoles, and phenols by the large intestine.
IC ICM A61K031-715
ICA C08B037-00
CC 18-4 (Animal Nutrition)
Section cross-reference(s): 1, 16
IT Liver, **disease**
(inhibition of formation of ammonia, indoles, and phenols by large **intestine** by low-mol. wt. galactomannan for treatment of liver **disorder**)
IT **Intestine**
(large, inhibition of formation of ammonia, indoles, and phenols by large **intestine** by low-mol. wt. galactomannan for treatment of liver **disorder**)
IT **11078-30-1P, Galactomannan**
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); **FFD (Food or feed use)**; THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(inhibition of formation of ammonia, indoles, and phenols by large **intestine** by low-mol. wt. **galactomannan** for treatment of liver **disorder**)

IT 108-95-2D, Phenol, derivs. 120-72-9D, Indole, derivs. 7664-41-7, Ammonia, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibition of formation of ammonia, indoles, and phenols by large **intestine** by low-mol. wt. galactomannan for treatment of liver **disorder**)



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MOST RECENT DERWENT UPDATE:     200275        <200275/DW>
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     FILE 'WPIDS' ENTERED AT 08:14:46 ON 25 NOV 2002
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L2           624 S L1 AND D13/DC
L3        593636 S FOOD OR FEED OR NUTRITION?
L4           610 S L1 AND L3
L5           820 S L2 OR L4
L6         12332 S INTESTIN?
L7            43 S L5 AND L6
L8            57 S L5 AND ?DIGEST?
L9            18 S UPTAKE (S) HIGH (2W) MOLE?
L10            2 S L5 AND L9
L11           39 S INTEST? (S) JUNCTION?
L12            1 S L11 AND L5
L13           89 S L7 OR L8
L14         8432 S ISCHAEMIA? OR ISCHEMIA? OR REPERFUSION?
L15       111064 S ALLERG? OR ANTIALLER? OR ANTIBACTER? OR ANTIMICROB? OR IMMUNO
L16       115387 S L15 OR L14
L17           17 S L13 AND L16
L18           17 S L17 OR L12 OR L10
L19         2593 S L1 AND B04/DC
L20          187 S L19 AND (L3 OR L2)
L21           30 S L20 AND (L11 OR L9 OR L16)
L22           21 S L21 NOT L18

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L18 ANSWER 1 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-690385 [74] WPIDS
CR 1997-011834 [01]; 2002-443183 [47]
DNC C2002-195071
TI Composition, useful for prolonging the residence time of an orally or enterally administered substance, comprises a dispersion of a carrier containing either an active lipid or a combination of the lipid and the substance.
DC A96 B05
IN LIN, H C
PA (LINM-I) LIN H C
CYC 1
PI US 2002094346 A1 20020718 (200274)* 18p
ADT US 2002094346 A1 Cont of US 1995-442843 19950517, Cont of US 1997-832307 19970403, CIP of US 1999-359583 19990722, US 1999-420046 19991018
PRAI US 1999-420046 19991018; US 1995-442843 19950517; US 1997-832307 19970403; US 1999-359583 19990722
AB US2002094346 A UPAB: 20021118
NOVELTY - A composition (I), comprises either:

(A) a dispersion in a carrier of several particles containing an active lipid for oral administration; or

(B) a liquid carrier and dispersion in the carrier containing an orally or enterally administered substance and the active lipid for enteral administration.

The active lipid is an optionally saturated fat, fully hydrolyzed fat and/or its salts.

DETAILED DESCRIPTION - A composition (I), comprises either:

(A) a dispersion in a carrier of several particles, containing an active lipid (L1), e.g. optionally saturated fat, fully hydrolyzed fat and/or its salts, and a controlled release coating on (L1), which upon ingestion releases (L1) and the particles, which are absorbed into the proximal segment of the small **intestine**, for oral administration (A1); or

(B) a liquid carrier and dispersion in the carrier containing an orally or enterally administered substance and (L1) for enteral administration (A2).

INDEPENDENT CLAIMS are also included for the following:

(1) Method of enhancing the absorption of an orally administered substance and promoting an anti-atherogenic or anti-**diarrheal** effect, **digestion** and dissolution, and slowing gastrointestinal transit, involves administration of at least one dose of oral composition, comprising a core containing a substance (S1) and a coating of an active lipid on the core.

(2) An enteral composition (C1) comprising a first component containing (S1) to be absorbed through the small **intestine** and a second component comprising a carrier dispersible form of (L1);

(3) A lipid dispersion comprising (C1) and a lipid dispersant containing an aqueous solution of an agent comprising at least one of bile salt, alkaline buffer and a detergent;

(4) A lipid emulsion (E1) comprising (C1) and a lipid dispersant containing an agent which in the presence of (L1) forms a two-phase emulsion;

(5) A lipid suspension comprising a solid agent which forms a suspension with the active lipid;

(6) An emulsion (E2) comprises (C1), emulsifiers and suspending agents;

(7) A cellulose emulsion comprising (E1) and cellulose derivatives;

(8) An oral formulation (II) comprising (C1) and an oral carrier;

(9) A controlled release formulation, comprising (C1) and a

controlled release coating;

(10) A slow release formulation comprising (C1) and a slow release coating; and

(11) A liquid enteric formulation comprising (C1).

ACTIVITY - Gastrointestinal; **Antidiarrheic**; Anti-HIV; **Antiinflammatory**; Antitumor; Antithyroid; **Antibacterial**; Anorectic; Nephrotropic.

39 Year old male was diagnosis with **diarrhea**-predominant irritable bowel syndrome, with symptoms including excessive gas, postprandial blaoting, **diarrhea** and urgency. After oleic acid treatment his upper gut transit times were so minutes (0 g), 117 minutes (1.6 g) and 101 minutes (3.2 g). With continuing treatment he reported bowel frequency reduced to a single solid bowel movement per day. Also reported was relief of gaseousnedd, bloating and rectal urgency.

MECHANISM OF ACTION - None given.

USE - The compositions are used for prolonging the residence time of an orally or enterally administered substance to treat a **nutritional** deficiency in a subject's associated with' e.g. gastrointestinal symptoms, gastrointestinal disorder, short bowel syndrome or **diarrhea**.

ADVANTAGE - The oral composition effects and sustains gastrointestinal transit slowing, dissolution, bioavailability, absorption promotion, anti-**diarrheal** and/or anti-atherogenic effect. The enteral composition upon ingestion releases (L1) into the proximal segment of the small **intestine**, so as to prolong the residence time of the substance in the small **intestine** and thus increase substance **digestion**, dissolution, bioavailability, absorption, anti-**diarrheal** and/or anti-atherogenic effect. The compositions therefore increase dissolution, bioavailability, and/or absorption of the substance. The gastrointestinal transit of the substance through the small **intestine** is slowed for a period of time effective for absorption of the substance to occur. The increased absorption of the substance is associated with the slowing of the gastrointestinal transit of the substance through the small **intestine**. The active lipids slow the transit and increase **digestion**, dissolution and/or residence time in, and absorption through, the small **intestine** without significant degradation and, thus increases absorption of the active ingredient in the presence of the active lipids than in their absence. The active lipid is absorbed through the stomach or proximal segment of the small **intestine** in undegraded form and, thus increases small **intestine** transit time and produces an anti-atherogenic, anti-**diarrheal**, **digestion**, dissolution and/or absorption promoting and/or gastrointestinal transit slowing effect; triggers at least one reflex of **intestino**-lower esophageal sphincter or relaxation of LES reflex, **intestino**-gastric feedback or inhibition of gastric emptying reflex, **intestino**-**intestinal** feedback or ileo-jejunal feedback/ileal brake reflex, jejunojejunal feedback/jejunal brake reflex, conversion to fed motility reflex, **intestino**-CNS feedback or satiety intensifying **intestinal** signaling reflex, **intestino**-panereatic feedback or exocrine enzyme output control reflex, **intestino** -biliary feedback or bile flow control reflex, **intestino** -mesenteric blood flow feedback reflex for mucosal hyperemia control and **intestino**-colonic feedback, gastro-colonic reflex or colon contracting response to nutrients, in the proximal segment of the small **intestine**. The compositions enhance the **digestion** and absorption of orally or enterally administered nutrients and pharmacological agents. The compositions reduce **diarrhea**, serum level of atherogenic lipids derived from an ingested substance.

Dwg.0/0

TECH UPTX: 20021118

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: (A1) and (A2) further include an additional ingredient selected from carriers (C2), excipients, vehicles, lipid dispersants, detergents, bile acid salts, and suspending, emulsifying, stabilizing, thickening, buffering, preserving, coloring, disintegrating, solubilizing, flavoring and sweetening agents.
(A1) is a liquid, a solid or tube-delivered composition, in the form of optionally coated microspheres or particles of a dispersible powder, granule formulation, suspension, emulsion, solution, syrup, elixir, tablet, troche, capsule, caplet, or lozenge.
(II) is in a form of capsules, optionally coated microspheres and particles, which may be encapsulated, optionally coated tablets, troches, lozenges, aqueous and oily suspensions, dispersible powders and granules, emulsions, hard and soft capsules, syrups and elixirs.
(C1) further comprises a carrier and an enteric coating which releases the first and the second components into the proximal segment of the small **intestine**.
(S1) is selected from the nutrients and pharmacological agents.
Preferred Components: The pharmacological agents are somatostatin analogues, insulin release inhibitors, anti-**diarrheal** agents, antibiotics, fiber, electrolytes, analgesics, antipyretics, migraine treatment, antifungal agents, antiviral agents, quinolones, AIDS agents, aminoglycosides, parasympathomimetics, anti-tuberculous agents, anti-malarial agents, vaccines, anti-parasitic agents, anti-arthritic agents, gout agents, nonsteroidal anti-**inflammatory** agents, gold compounds, antianemic agents, antianginal agents, antiarrhythmics, vasodilators, beta-adrenergic blockers, calcium channel blockers, nitrates, thrombolytic agents, anticoagulants, antifibrolytic agents, hemorrheologic agents, antiplatelet agents, vitamins, antihemophilic agents, heart failure agents, ACE inhibitors, cardiac glycosides, blood flow agents, bile salts, growth agents, sympathomimetics, inotropic agents, antihypertensive agents, central alpha-adrenergic agonists, peripheral vasodilator, sympatholytics, diuretics, mineral supplements, hypolipedemic agents, acne treatments, antinauseants, antiemetics, antispasmodics, antiulcer, antireflux agents, appetite suppressants, appetite enhancers, gallstone-dissolving agents, gastrointestinal agents, antacids, antiflatulents, laxatives, stool softeners, **digestants**, **digestive** enzymes, enzyme supplements, Alzheimer's therapy, anticonvulsants, antiparkinson agents, sedatives, benzodiazepine receptor antagonists, receptor agonists, receptor antagonists, interferons, immuno agents, muscle relaxants, hypnotics, antianxiety agents, antimanic agents, antidepressants, antiobesity agents, behavior modifiers, psychostimulants, neurostimulants, abuse deterrents, anxiolytics, antipsychotics, antianaphylactic agents, antihistamines, antipruritics, anti-**inflammatory** agents, bronchodilators, antiasthmatic agents, cystic fibrosis agents, steroids, xanthines, anticholinergic agents, bioactive peptides, polypeptides, hormones, prostaglandins, narcotics, hypnotics, alcohols, psychiatric therapy agents, anticancer agents, drugs affecting motility, oral hypoglycemics, androgens, estrogens, nutriceuticals, herbal medications, insulin, serotonin receptor agonist, serotonin receptor antagonists, amino acids, dietary supplements, analeptic agents, respiratory agents, cold remedies, cough suppressants, antimycotics, bronchodilators, contraceptives, decongestants, expectorants, motion sickness products or homeopathic preparations.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: (L1) contians a 4 -24C fatty acid (optionally saturated) and/or its salts and is present in a concentration of 0.5 - 25 g.
For (C1), the active ingredient is a nutrient or a pharmacological agent. The nutrients are foodstufts, vitamins or minerals. For the liquid enteric

formulation, the active ingredient is a dispersion of the nutrients and/or pharmacological agents.
(C2) are solid, semisolid or liquid glucose, lactose, mannitol, magnesium trisilicate, talc, urea, or medium chain length triglycerides.

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: (C1) is gum acacia, gelatin, cornstarch, keratin, colloidal silica, potato starch, **dextrans**, starch paste.
Emulsifiers and suspending agents are gum acacia, agar, sodium alginates, bentonites carbomers, celluloses, carrageenan, carboxymethyl celluloses, cholesterol, gelatins, octoxynol 9, oleyl alcohols, poly-vinyl alcohols, povidone, propylene glycol monostearates, sodium lauryl sulfate, sorbitan esters, stearyl alcohol, tragacanth, xantham gum, chondrus, glycerin, trolamine, coconut oil, propylene glycol, ethyl alcohol, malt, and/or malt extracts.
Celluloses selected from cellulose, hydroxyethyl celluloses, hydroxypropyl (methyl)celluloses and/or methylcelluloses.

L18 ANSWER 2 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-569179 [61] WPIDS
DNC C2002-161821
TI **Nutritional** foodstuff for regulating **intestine**, is a tablet or capsule comprising bifidobacterium, Lactobacillus faecalis/Lactobacillus acidophilus, oligosaccharide and dietary fibers in preset amount.
DC **D13**
PA (SANB-I) SANBONMATSU Y
CYC 1
PI JP 2002142719 A 20020521 (200261)* 3p
ADT JP 2002142719 A JP 2000-339344 20001107
PRAI JP 2000-339344 20001107
AB JP2002142719 A UPAB: 20020924
NOVELTY - **Nutritional** foodstuffs for regulating **intestine**, is a tablet or capsule comprising (wt.%) bifidobacterium, Lactobacillus faecalis and/or L. acidophilus (5-15); oligosaccharide(s) (10-30); and dietary fibers (60-80). The dietary fiber is extracted from **glucomannan**, Psyllium seed gum or seaweed.
USE - As **nutritional food** for regulating large and small **intestine**.
ADVANTAGE - The foodstuff prevents loose stool and **diarrhea** caused by simultaneous ingestion of oligosaccharide and dietary foodstuff, without impairing the proliferative effects of lactobacillus.
Dwg.0/0

L18 ANSWER 3 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-507230 [54] WPIDS
CR 2001-529103 [58]
DNC C2002-144162
TI New enzymes encoded by bacteriophage isolated from Streptococcus mutans are useful to treat and prevent dental caries and peridontal diseases, to remove dental plaque and to prevent spoilage of **food** by gram positive bacteria.
DC B04 D16 D21
IN DELISLE, A L
PA (DELI-I) DELISLE A L
CYC 1
PI US 2002044911 A1 20020418 (200254)* 11p
ADT US 2002044911 A1 Cont of US 1997-886119 19970630, US 2001-951674 20010914
PRAI US 1997-886119 19970630; US 2001-951674 20010914
AB US2002044911 A UPAB: 20020823

NOVELTY - Isolated and purified phage-encoded anti-bacterial enzymes which inhibit the establishment of dental caries, or **digest** insoluble **dextran** polysaccharides, or which can remove dental plaque, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) treatment and prevention of dental caries and peridontal diseases, comprising providing a phage-encoded anti-bacterial enzyme to an organism sufficient to kill bacteria in an oral cavity;

(2) studying a cell wall of an oral bacterium comprising treating the cell wall with a phage-encoded cell wall-lytic enzyme;

(3) preventing spoilage of fresh, refrigerated or pasteurized perishable items, comprising treating the items with a phage-encoded anti-bacterial enzyme sufficient to inhibit growth of a gram-positive spoilage bacteria on the items;

(4) removal of insoluble **dextran** polysaccharides synthesized by bacteria comprising providing a phage-encoded enzyme which can **digest dextran** polysaccharides;

(5) removal of dental plaque comprising providing a phage-encoded enzyme which can remove dental plaque;

(6) a DNA fragment isolated from a bacteriophage which encodes an anti-bacterial enzyme which inhibits the establishment of an oral bacterium;

(7) a DNA fragment isolated from a bacteriophage which encodes an enzyme which can **digest** insoluble **dextran** polysaccharides;

(8) a DNA fragment isolated from a bacteriophage which encodes an enzyme which can remove dental plaque;

(9) an expression vector comprising one of the above DNA fragments operably linked to control elements which direct its expression;

(10) a host cell comprising the above vector;

(11) an antibody directed to an enzyme isolated from a bacteriophage which inhibits the establishment of oral bacteria or can **digest** insoluble **dextran** polysaccharides;

(12) a vehicle for delivery of an enzyme isolated from a bacteriophage which inhibits the establishment of oral bacteria or removes dental plaque, comprising a mouthwash, mouthrinse, topical gel or ointment, toothpaste, powder, slow release implant, slow release coating or chewing gum; and

(13) a genetically engineered, non-cariogenic organism which colonizes dental plaque and produces phage-encoded enzymes that inhibit establishment of a cariogenic organism, particularly Streptococcus sanguis or S. mutans.

ACTIVITY - **Antibacterial**.

Lysates of phage M102, e10 and f1 which infect certain strains of serotype c, e and f of S. mutans, were obtained by infecting a growing broth culture of sensitive cells, diluted even to 10.sup.-2 to 10.sup.-3 caused clear zones (indicating cell lysis) when spotted onto overlays of all three serotype strains of S. mutans, even those on which the phage cannot form plaques. Phage-resistant mutants were also lysed, indicating that such zones are not due to lysis-from-without, whereas gram-negative cells and cells of unrelated gram-positive organizations were not lysed. Taken together, these observations indicate that each phage produced a potent lysozyme-like enzyme which was relatively specific for S. mutans. While each of the three phages produced clear plaques on its respective host, in each case a turbid-plaque forming variant of each phage was readily isolated.

MECHANISM OF ACTION - No data provided.

USE - The enzymes can be used to prevent and treat dental caries and peridontal diseases, to remove dental plaque, to remove insoluble

dextran polysaccharides, to prevent spoilage of fresh, pasteurized and refrigerated items, particularly acid **foods** such as cheese, and in the study of oral bacteria cell walls (claimed)

ADVANTAGE - Unlike prior art treatment and prevention of dental caries and peridontal diseases, the phage-encoded enzymes do not lead to development of resistant bacterial mutants because their development in response to the compositions would require too drastic an alteration in the basic structure of the bacterial cell wall.

Dwg.0/7

TECH UPTX: 20020823

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Enzyme: The enzyme which inhibits oral bacteria, is a cell wall-lytic enzyme or prevents spoilage is a lysozyme, preferably one active at low pH and present in a bacteriophage lysate. Preferably the bacteria are Actinobacillus, Actinomyces, Bacteroides, Capnocytophaga, Eikenella, Eubacterium, Fusobacterium, Haemophilus, Lactobacillus, Peptostreptococcus, Porphyromonas, Prevotella, Rothia, Selenomonas, Streptococcus, Treponema, Wolinella. The enzyme that **digests** insoluble **dextran** polysaccharides is preferably a dextranase.

Isolation: Isolation of the enzymes is not described in the examples.

L18 ANSWER 4 OF 17 WPIDS (C) 2002 THOMSON DERWENT

AN 2002-488791 [52] WPIDS

CR 2002-280845 [32]; 2002-280846 [32]; 2002-488790 [52]

DNC C2002-138796

TI Methods for improving muscle protein synthesis, preventing muscle loss and accelerating muscle mass recovery, involves using **nutritional** compositions containing whey protein, lipid, carbohydrate and vitamins E and C.

DC B05 **D13**

IN ANANTHARAMAN, H G; BALLEVRE, O; BEAUFRERE, B; DANGIN, M; FUCHS, E C; GARCIA-RODENAS, C L; GUIGOZ, Y; LEATHWOOD, P; MALLANGI, C R; REIFFERS-MAGNANI, K; TURINI, M

PA (ANAN-I) ANANTHARAMAN H G; (BALL-I) BALLEVRE O; (BEAU-I) BEAUFRERE B; (DANG-I) DANGIN M; (FUCH-I) FUCHS E C; (GARC-I) GARCIA-RODENAS C L; (GUIG-I) GUIGOZ Y; (LEAT-I) LEATHWOOD P; (MALL-I) MALLANGI C R; (REIF-I) REIFFERS-MAGNANI K; (TURI-I) TURINI M

CYC 1

PI US 2002044988 A1 20020418 (200252)* 10p

ADT US 2002044988 A1 Provisional US 2000-227117P 20000822, US 2001-821498 20010329

PRAI US 2000-227117P 20000822; US 2001-821498 20010329

AB US2002044988 A UPAB: 20020815

NOVELTY - Methods for improving muscle protein synthesis, preventing muscle loss and accelerating muscle mass recovery, involves administering **nutritional** compositions containing whey protein, a lipid, a carbohydrate and a macronutrient profile.

DETAILED DESCRIPTION - Methods for improving muscle protein synthesis, preventing muscle loss and accelerating muscle mass recovery, involves administering a composition comprising:

(a) a protein source which provides at least 8% of the total calories of the composition, which includes at least 50 wt.% of whey protein;

(b) a lipid source having an omega 3 to 6 fatty acid ratio of 5:1 to 10:1, which provides at least 18% of the total calories of the composition;

(c) a carbohydrate source; and

(d) a macronutrient profile, comprising at least vitamins E and C.

ACTIVITY - **Nutritional**.

MECHANISM OF ACTION - Glutamine synthesis promoters.

A study was carried out in healthy elderly men to determine the

effect of supplements containing either whey protein or casein on whole body postprandial protein metabolism and balance. Volunteers received liquid supplements differing only by protein composition: (A) contained casein (30 g, and (B) contained whey protein (30 g). After ingestion of supplement (B), postprandial leucine balance over 7 hours was 135 plus or minus 18 micro mol. kg-1; nearly 3-fold higher than after ingestion of (A) (54 plus or minus 14 micro mol. kg-1).

USE - As a **nutritional** supplement, for improving muscle protein synthesis, preventing muscle loss and accelerating muscle mass recovery. The composition can be used to provide **nutrition** to stressed patients having a depleted glutamine status, e.g. for patients with **sepsis**, burns or **inflammation**; or suffering from cystic fibrosis, malignancy, chronic **inflammatory** bowel disease, ulcerative colitis, or Crohn's disease.

ADVANTAGE - Whey protein is rapidly **digested**, and the patient is more likely to consume a therapeutically effective amount of the supplement or other **food** to provide adequate **nutrition**. A composition comprising whey protein can produce a 2 fold increase in whole body protein deposition in elderly people compared to casein as the protein source.

Dwg.0/2

TECH UPTX: 20020815

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The whey protein is a partially hydrolyzed whey protein (preferably at least50% hydrolyzed), and the protein source may include casein glycomacropeptide. The protein source preferably provides up to 20% of the total energy of the composition.

The lipid source comprises 40-65 wt.% of monounsaturated fatty acids and 15-30% of polyunsaturated fatty acids. The saturated fatty acid content is less than 30 wt.%, and the lipid source provides 25-35% of the total energy of the composition.

The carbohydrate source comprises sucrose, corn syrup and/or maltodextrin, and provides 50-60% of the total energy of the composition.

The micronutrient composition includes vitamin E and C, taurine, folic acid and vitamin B-12.

The composition may further comprise a pre-biotic fiber, e.g. inulin, acacia gum, resistant starch, **dextran**, xylo-oligosaccharide and/or fructo-oligosaccharide.

L18 ANSWER 5 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-280846 [32] WPIDS
CR 2002-280845 [32]; 2002-488790 [52]; 2002-488791 [52]
DNC C2002-082617
TI Use of **nutritional** composition, comprising protein-, lipid-, carbohydrate-sources and macro-nutrient profile, for preparing ingestible carrier for improving muscle protein synthesis.
DC **D13**
IN ANANTHARAMAN, H G; BALLEVRE, O; BEAUFRERE, B; DANGIN, M; FUCHS, E C; GARCIA-RODENAS, C L; GUIGOZ, Y; LEATHWOOD, P; MALLANGI, C R; REIFFERS-MAGNANI, K; TURINI, M
PA (INRG) INST NAT RECH AGRONOMIQUE; (NEST) SOC PROD NESTLE SA
CYC 96
PI WO 2002015720 A2 20020228 (200232)* EN 24p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2001091777 A 20020304 (200247)

ADT WO 2002015720 A2 WO 2001-EP9579 20010820; AU 2001091777 A AU 2001-91777 20010820
FDT AU 2001091777 A Based on WO 200215720
PRAI US 2000-227117P 20000822
AB WO 200215720 A UPAB: 20020820
NOVELTY - A composition, comprising protein source containing at least 50 weight % of whey protein, lipid source having omega omega 3-6 fatty acid ratio of 5:1-10:1, a carbohydrate source and macro-nutrient profile comprising vitamin E and C, is used for preparing an ingestible carrier. The protein source and lipid source provides at least 8% and 18% respectively, of the total calories of the composition.

USE - For preparing an ingestible carrier for use as **nutritional** supplement (in the form of pudding with thin custard or flan like texture) for improving muscle protein synthesis, preventing muscle loss, or accelerating muscle mass recovery, in patient suffering from muscle mass depletion, due to appetite, trauma, illness, surgery, old age. Also in patients having problems in **digesting** other sources of proteins such as persons having chronic gastritis. L-(113C) leucine (99 mol percent excess, MPE), L-(5,5,5-2H3) leucine (97 MPE) and sodium (13C) bicarbonate (99 MPE) were obtained from Eurisotop (Gif-sur-Yvette, France). The tracers were administered intravenously (L-(1-13C) leucine and (13C) bicarbonate). L-(5,5,5-2H3) leucine was employed to produce two intrinsically labeled bovine milk proteins fractions. casein and whey proteins. Labeled proteins were obtained by infusing a lactating cow with the deuterated tracer, collecting milk and purifying the 2 protein fractions by micro-filtration and ultrafiltration. The leucine enrichments were 8.28 and 8.16 MPE, respectively. Labeled proteins fractions were mixed with their respective unlabeled fraction, to obtain a total concentration of 10 micro mol/kg L-(5,5,5-2H3) leucine.

Nine elderly healthy male volunteers who were 71.8 plus or minus 1 years old, without any medical history of renal, cardiovascular, gastrointestinal or endocrine disease, participated in the study. After the supplement containing casein (CAS), only a slight increase of non-oxidative leucine disposal (NOLD), an index of whole body protein synthesis, was detected. In contrast, ingestion of the supplement containing whey protein (WP) induced a marked increase of NOLD during 40-160 min, which was significantly higher than that of CAS (P less than 0.01). After ingestion of the supplement containing WP, postprandial leucine balance (an index of protein balance) over 7 h was 135 plus or minus 18 micro mol/kg, nearly 3-fold higher than after ingestion of the supplement containing casein.

ADVANTAGE - The composition containing whey protein is easy to **digest**, and it can produce at least a 2-fold increase in whole body protein deposition in elderly people as compared to casein as the protein. This helps patients to conserve muscle protein, rebuild muscle protein more rapidly, and hence get their strength back faster. The composition has a well balanced lipid protein and provides a readily available energy source. Despite the high proportion of partially hydrolyzed protein, in the composition it is physically stable and has a very acceptable taste. The profile aids replenishment of nutrients required in higher quantities during periods of illness or recovery due to oxidative stress or **inflammatory** conditions. The probiotic micro-organism provides the advantage of restoring the natural balance of the **intestinal** flora following antibiotic therapy. This product has the advantage of inhibiting the growth of Helicobacter pylori in the stomach which is associated with the development of ulcer particularly in individuals having gastritis. The composition can be simply provided in a functional **food** product, without the need for special administration. The **nutritional** supplement has an energy content of 800-2000 kcal/l, preferably 1000-1500 kcal/l.

DESCRIPTION OF DRAWING(S) - The figure illustrates graphically, protein synthesis after consumption of **nutritional** supplements containing whey protein or casein.
Dwg.1/2

TECH UPTX: 20020521
TECHNOLOGY FOCUS - **FOOD** - Preferred Components: The whey protein includes a partially hydrolyzed whey protein. The whey protein hydrolyzate constitute 50 wt.% of the protein source in the composition. The lipid source comprises 40-65 wt.% of mono-unsaturated fatty acids, 15-30 wt.% of poly-unsaturated fatty acids and less than 30 wt.% of saturated fatty acids. The carbohydrates source comprises sucrose, corn syrup, and/or maltodextrin.
Preferred Composition: The composition includes caseino-glycomacropeptide. The composition includes micro-nutrient(s) selected from vitamin E, vitamin C, taurine, folic acid and vitamin B-12. The composition comprises at least one prebiotic fiber selected from inulin, acacia gum, resistant starch, **dextran**, xylo-oligosaccharides, and/or fructo-oligosaccharides. The composition includes at least one micro-organism such as probiotic micro-organism.
Preferred Properties: The protein, lipid and carbohydrate sources respectively provides up to 20%, 25-35% and 50-60% of the total energy of the composition.

L18 ANSWER 6 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-280845 [32] WPIDS
CR 2002-280846 [32]; 2002-488790 [52]; 2002-488791 [52]
DNC C2002-082616
TI Composition as nutritive supplement for sick patient, comprises sources of protein having preset amount of whey protein, lipid with preset fatty acid, carbohydrate and macro-nutrient, providing preset total calories.
DC **D13**
IN ANANTHARAMAN, H G; FUCHS, E C; GARCIA-RODENAS, C L; GUIGOZ, Y; LEATHWOOD, P; MALLANGI, C R; REIFFERS-MAGNANI, K; TURINI, M
PA (NEST) SOC PROD NESTLE SA
CYC 96
PI WO 2002015719 A2 20020228 (200232)* EN 20p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2001095488 A 20020304 (200247)
ADT WO 2002015719 A2 WO 2001-EP9578 20010820; AU 2001095488 A AU 2001-95488 20010820
FDT AU 2001095488 A Based on WO 200215719
PRAI US 2000-227117P 20000822
AB WO 200215719 A UPAB: 20020820
NOVELTY - A composition comprises protein source providing at least 8% of the total calories, lipid source providing at least18% of the total calories, carbohydrate source, and macro-nutrient profile comprising at least vitamin E and C. The protein source comprises at least 50 weight % of whey protein of the protein source. The lipid source has omega (omega) 3-6 fatty acid ratio of approximately 5:1-10:1.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) use of the composition as **nutritional** supplement; and
(2) producing the composition which involves blending protein source, lipid source, carbohydrate source and micro-nutrients.
USE - For use as **nutritional** supplement (claimed), in pet

food, for use in preparing ingestable carrier, functional **food** or medicament for supplementing **nutrition**, prevention or treatment of convalescing patients recovering from illness or surgery, for persons having limited appetite such as elderly, children or anorexic patients, persons having impaired ability to **digest** protein and other sources of protein such as persons having chronic gastritis who have reduced gastric pepsin **digestion**, for sick patients, for protein-energy malnutrition, for persons suffering from **sepsis**, injury, burns and **inflammation**, for stressed patients having depleted glutamine status, for promoting glutamine synthesis in patients suffering from injured, diseased **intestines** or maintained physiological function of **intestine**, for maintaining/increasing plasma glutamine levels in humans and animals, for improving immune function, for patients suffering from impaired/reduced mucin production such as patients undergoing **inflammatory** response suffering from malnutrition, suffering from cystic fibrosis, malignancy, chronic **inflammatory** bowel diseases, ulcerative colitis and Crohn's disease.

ADVANTAGE - The composition is easier to **digest** and less prone to induce satiety, and hence reduces problems of patient not consuming sufficient amount of supplement. Rich components of the composition provides supplement which is more rapidly **digested**, enabling patients to consume therapeutically effective amount of supplement or other **food** to provide adequate **nutrition** . The composition has well-balanced lipid profile which provides readily available energy source. The composition is physically stable, less viscous and lighter, and has favorable taste, when compared conventionally. The composition enables efficient and quick regain of strength, and hence helps in recovery of convalescing patient. The composition in powder-form, fortified beverage in liquid-form, bar, or in pudding with custard or flan-like texture, is easily consumed even by persons with dysphagia or other swallowing problems. The composition is formulated for human consumption and/or administration, preferably provided in functional **food** product which does not require any special administration. Probiotic microorganism restores natural balance of **intestinal** flora after antibiotic therapy. The composition efficiently inhibits growth of Helicobacter pylori in stomach causing ulcer in individuals having gastritis. The composition rich in vitamin E and C, and taurine, is used to replete levels of nutrients in blood following depletion related to infection, **sepsis** or other oxidative stress. Prebiotic fiber beneficially affects host by selectively stimulating growth and/or activity of bacteria in colon having potential to improve host health. Soluble, prebiotic fibers promote growth of bifidobacteria in gastrointestinal tract, and prevents/reduces growth of pathogens such as Clostridiae. Whey protein has high threonine content (important building block of mucins), and hence supplement is provided to patients suffering from impaired/reduced mucin production like patients undergoing **inflammatory** response suffering from malnutrition, undergoing treatment including administration of non-steroidal **antiinflammatory** drugs, and after total parenteral **nutrition**. Whey protein has high cysteine content (important antioxidant and immediate precursor of glutathione), and hence supplement is provided to patients suffering from glutathione depletion and low antioxidant status.

Dwg.0/0

TECH UPTX: 20020521

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Protein: Whey protein comprises at least 50 wt.% of partially or fully hydrolyzed whey protein. The whey protein hydrolyzate comprises at least 50 wt.% of the protein source.

Preferred Composition: The composition comprises protein source that provides up to 20%, more preferably 10-20% of the total energy, lipid source provides 25-35% of the total energy, and carbohydrate source provides 50-60% of the total energy of the composition. The lipid source comprises 40-65 wt.% of mono-unsaturated fatty acids. The composition comprises less than 30 wt.% of saturated fatty acid, and further comprises casein-glycomacropeptide, prebiotic fiber(s), and probiotic microorganism(s).
Preferred Carbohydrate Source: Carbohydrate source comprises sucrose, corn syrup and/or maltodextrin. Preferred Micro-nutrient: Micro-nutrient is vitamin E, vitamin C, taurine, folic acid and/or vitamin B12.
Preferred Fiber: Prebiotic fiber is inulin, acacia gum, resistant starch, **dextran**, xylo-oligosaccharides and/or fructo-oligosaccharides.
Preferred Process: The protein is hydrolyzed with enzyme(s) at pH 6.6-8.8, at 40-70degreesC and at an enzyme concentration of 0.5-2.5% of the protein, for 5-120 minutes. The process further involves adding at least one probiotic or prebiotic to the product.

L18 ANSWER 7 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-197394 [26] WPIDS
DNC C2002-061167
TI Sugar decomposition inhibitor useful as, e.g. medicines, quasi drugs, **foods** and healthy beverages or **feeds**, comprises hot-water extract of banaba.
DC A97 **D13**
IN HAYASHI, K; KAKUDA, T; SAKANE, I; SUZUKI, Y
PA (ITOE-N) ITO EN LTD
CYC 28
PI EP 1166790 A1 20020102 (200226)* EN 21p
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
JP 2002012547 A 20020115 (200226) 12p
US 2002018818 A1 20020214 (200226)
ADT EP 1166790 A1 EP 2001-115510 20010627; JP 2002012547 A JP 2000-194068 20000628; US 2002018818 A1 US 2001-888448 20010626
PRAI JP 2000-194068 20000628
AB EP 1166790 A UPAB: 20020424
NOVELTY - A sugar decomposition inhibitor comprises a mixture of hot-water extract of banaba and synthetic resin adsorption fraction of banaba. The synthetic resin adsorption fraction of banaba is obtained by adsorbing the hot-water extract of banaba with styrene-divinylbenzene series synthetic resin or **dextran** series synthetic resin.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a healthy **food** and beverage produced by adding a hot-water extract of banaba and sugar except for monosaccharides.

ACTIVITY - Antidiabetic. Wistar-type male rats were made to fast for 18 hours and administered by mouth with a mixture of sugar solution and solution of HWE of banaba at a rate of 500 mg/kg at the same time. The blood sugar showed a higher difference value after 60 minutes of administering when compared with the reference group.

MECHANISM OF ACTION - Maltase activity inhibitor; glucoamylase activity inhibitor; sucrase activity inhibitor; isomaltase activity inhibitor; insulin secretion controller.

USE - The inventive sugar decomposition inhibitor is useful as medicines, quasi drugs, **foods** and healthy beverages, **food** additives, **feeds**, and **feed** additives. It is useful in treating and preventing diabetes and fatness, as well as heart tract system diseases e.g., myocardial infarction, arteriosclerosis, and hypertension, the skin diseases e.g., black heads, pimples, and other disease **inflammations**, which are caused by supernutrition.

ADVANTAGE - The inventive sugar decomposition inhibitor hinders **digestion** and absorption of sugar e.g., starch, glycogen, oligosaccharide, sucrose, and maltose, thus restraining the rapid increase in blood sugar level after a meal. It is made of safe component (i.e., banaba), which has been used habitually from old times in the Philippines and other countries. The **food** or beverage containing this sugar decomposition inhibitor can gradually perform the dieting while maintaining health without excessive dieting e.g., fasting.
Dwg.0/8

TECH UPTX: 20020424
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The sugar except for monosaccharides in **food** and beverage can be sucrose, maltose, dextrin, or glycogen.

L18 ANSWER 8 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-607142 [69] WPIDS
DNC C2001-180373
TI Pediatric formula for use by infants having problems in **digesting** and absorbing regular **foods**, includes carbohydrates, lipid, protein, and tolerance improver comprising xanthan gum.
DC A97 **D13**
IN BLACK, C J; BORSCHEL, M W; COSTIGAN, T; LUEBBERS, S T; MCKAMY, D L
PA (ABBO) ABBOTT LAB
CYC 37
PI WO 2001056406 A1 20010809 (200169)* EN 36p
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
W: AU BG BR CA CN CZ HU IL JP KR MX NO NZ PL RO SI SK TR
AU 2001029490 A 20010814 (200173)
US 6365218 B1 20020402 (200226)
BR 2001006681 A 20020430 (200237)
ADT WO 2001056406 A1 WO 2001-US1295 20010116; AU 2001029490 A AU 2001-29490 20010116; US 6365218 B1 US 2000-498350 20000204; BR 2001006681 A BR 2001-6681 20010116, WO 2001-US1295 20010116
FDT AU 2001029490 A Based on WO 200156406; BR 2001006681 A Based on WO 200156406
PRAI US 2000-498350 20000204
AB WO 200156406 A UPAB: 20011126
NOVELTY - A pediatric formula comprises (on a 100 kcal basis) 8-16 g carbohydrate, 3-6 g lipid, 1.8-3.3 g protein, and a tolerance improver comprising 37-370 mg xanthan gum.
USE - The pediatric formula in powder, concentrate or ready-to-**feed** forms is used by infants/children having problems in **digesting** and absorbing regular **foods**, severe **food allergies**, and gastrointestinal tract problems.
ADVANTAGE - The inventive formula provides the infant's daily **nutritional** requirements and enhances tolerance in pediatric patients.
Dwg.0/0

TECH UPTX: 20011126
TECHNOLOGY FOCUS - **FOOD** - Preferred Composition: The pediatric formula preferably comprises 9.4-12.3 g carbohydrate, 4.7-5.6 g lipid, 2.4-3.3 g protein, and 74-222 (preferably 111-148) mg xanthan gum. It may be provided in a powder form comprising (based on 100 g powder) 30-90 (preferably 48-59) g carbohydrates, 15-30 (preferably 22-28) g lipid, 8-17 (preferably 11-17) g protein, and 188-1880 preferably 565-750 mg xanthan gum.
Preferred Components: The pediatric formula also comprises vitamins and minerals consisting of calcium, phosphorus, sodium, chloride, magnesium, manganese, iron, copper, zinc, selenium, iodine, and/or vitamins A, E, C, D, K, and B complex. It further comprises a stabilizer consisting of gum

arabic, gum ghatti, gum karaya, gum tragacanth, agar, furcellaran, guar gum, gellan gum, locust bean gum, pectin, low methoxyl pectin, gelatin, microcrystalline cellulose, sodium carboxymethylcellulose, methyl cellulose hydroxypropyl methylcellulose, hydroxypropyl cellulose, diacetyl tartaric acid esters of mono- and diglycerides (DATEM), **dextran**, and/or carrageenan. The carbohydrate consists of hydrolyzed, intact, naturally and chemically modified starches from corn, tapioca, rice, or potato in waxy or non waxy forms; and/or sugars, e.g. glucose, fructose, lactose, sucrose, maltose, or high fructose corn syrup. The lipid consists of coconut oil, soy oil, corn oil, olive oil, safflower oil, high oleic safflower oil, medium chain triglycerides (MCT) oil, sunflower oil, high oleic sunflower oil, palm oil, palm olein, canola oil, and/or lipid sources of arachidonic acid and docosahexanoic acid. The protein consists of intact protein, hydrolyzed protein, or free amino acids. The intact protein may be soy based protein, milk based protein, casein protein, whey protein, rice protein, beef collagen, pea protein, and/or potato protein. The hydrolyzed protein may be soy protein hydrolysate, casein protein hydrolysate, whey protein hydrolysate, rice protein hydrolysate, potato protein hydrolysate, fish protein hydrolysate, egg albumen hydrolysate, gelatin protein hydrolysate, and/or a combination of animal and vegetable protein hydrolysates. The free amino acids may be tryptophan, tyrosine, cystine, taurine, L-methionine, L-arginine, and/or carnitine.

L18 ANSWER 9 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-423602 [45] WPIDS
DNC C2001-128108
TI Use of an **indigestible** polysaccharide(s) in the production of a **food** preparation to prevent to **uptake** of **high molecular** weight substances, **allergens** and microorganisms through the **intestine** wall.
DC B04 **D13**
IN BIJLSMA, P B; GROOT, J A; KILIAAN, A J; TIMMERMANS, J W; VAN DER MEULEN, J; VAN LAERE, K M J
PA (NUTR-N) NUTRICIA NV
CYC 95
PI NL 1013175 C2 20010330 (200145)* 18p Instant.
WO 2001033975 A1 20010517 (200145) EN
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000079717 A 20010606 (200152)
EP 1217902 A1 20020703 (200251) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
ADT NL 1013175 C2 NL 1999-1013175 19990929; WO 2001033975 A1 WO 2000-NL697 20000929; AU 2000079717 A AU 2000-79717 20000929; EP 1217902 A1 EP 2000-970318 20000929, WO 2000-NL697 20000929
FDT AU 2000079717 A Based on WO 200133975; EP 1217902 A1 Based on WO 200133975
PRAI NL 1999-1013175 19990929
AB NL 1013175 C UPAB: 20010813
NOVELTY - An **indigestible** polysaccharide(s) from **dextrans** with molecular weight (mol. wt.) 8-40,000 kD, comprises hydrolyzed (**gluco**)**mannans** of mol. wt. 0.5-1000 kD and hydrolyzed (**galacto**)**mannans** of mol. wt. 0.5-1000 kD, where the viscosity increase due to the **dextran** is below 20 mPas.
DETAILED DESCRIPTION - The use of an **indigestible**

polysaccharide(s) from **dextrans** of mol. wt. 8-40,000 kD, hydrolyzed (**gluco**)**mannans** of mol. wt. 0.5-1000 kD and hydrolyzed (**galacto**)**mannans** of mol. wt. 0.5-1000 kD in the production of a **food** preparation to prevent **uptake** of **high mol**. wt. substances, **allergens** and microorganisms through the **intestine** wall is claimed, the viscosity increase due to the **dextran** being below 20 mPas.

An INDEPENDENT CLAIM is included for a **food** composition containing **dextran** of mol. wt. 8-40,000 kD with a viscosity increase due to the **dextran** of below 20 mPas.

ACTIVITY - **Antiallergic**; **antibacterial**; **immunosuppressive**; **antiinflammatory**; vasotropic; cytostatic; **antidiarrheic**.

No biological data given.

MECHANISM OF ACTION - None given.

USE - The invention is used to prevent to **uptake** of **high mol**. wt. substances, **allergens** and microorganisms through the **intestine** wall. The invention is used for the treatment of **allergies**, **allergic** reactions, **sepsis**, **inflammatory** processes, **ischemia**, **reperfusion** during operations, radiation and chemotherapy in cancer patients, **diarrhea** and **inflammatory** **intestinal** problems (all claimed).

ADVANTAGE - The transport through tight junctions is prevented.

Dwg.0/6

TECH UPTX: 20010813

TECHNOLOGY FOCUS - **FOOD** - Preferred Composition: The amount of polysaccharide is 0.1-20, especially 1-6 g/l (claimed). The polysaccharide is **dextran** of mol. wt. 8-40,0020-2000 kD (claimed).

L18 ANSWER 10 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-376315 [40] WPIDS
DNC C2001-115230
TI Production of mannose- and galactose-containing oligosaccharides, useful for treatment or prevention of infection, by enzymatic hydrolysis of **galactomannan**.
DC B04 **D13** D16
IN KLINGEBERG, M; KUNZ, M; LUDWIG, E; MUNIR, M; RITTIG, F; VOGEL, M
PA (SUED-N) SUEDZUCKER AG MANNHEIM/OCHSENFURT; (SUED-N) SUEDZUCKER AG
CYC 27
PI DE 19961182 A1 20010621 (200140)* 12p
WO 2001044489 A2 20010621 (200140) DE
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
W: AU CA IL JP KR MX RU US
AU 2001031575 A 20010625 (200162)
ADT DE 19961182 A1 DE 1999-19961182 19991218; WO 2001044489 A2 WO 2000-EP12574 20001212; AU 2001031575 A AU 2001-31575 20001212
FDT AU 2001031575 A Based on WO 200144489
PRAI DE 1999-19961182 19991218
AB DE 19961182 A UPAB: 20010719
NOVELTY - Production of mannose- and galactose-containing oligosaccharides (I) by hydrolysis of an aqueous suspension or solution of **galactomannan** (II) with a bacterial enzyme (III). The product is an aqueous solution of a mixture of (I) with degree of polymerization (DP) below 15.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) (I) produced this way and comprising beta -1,4-linked mannose and alpha -1,6-galactose units;

(2) enzyme (IIIa) able to hydrolyze (II) and prepared from Bacillus

subtilis DSM 13182;
(3) crude extract, able to hydrolyze (II), produced by lysing cells of DSM 13182;
(4) the strain DSM 13182;
(5) pharmaceutical composition containing (I), optionally also a carrier; and
(6) **food** or condiment containing (I).
ACTIVITY - Anti-infectious; antitumor; immunostimulatory; anti-**inflammatory**; anti-osteoporosis; antidiabetic.
MECHANISM OF ACTION - (I) reduce the glycemic index of **foods** (by inhibiting **intestinal** alpha -glucosidase); inhibit attachment of pathogens to epithelial cells; stimulate the immune system; improve calcium uptake; and stimulate mucus secretion in the **intestines**. They are fermented in the colon to short-chain fatty acids (particularly butyric acid), reducing the pH which favors useful bacteria but inhibits pathogens. Human uroepithelial cells (A) and bacteria (Staphylococcus aureus or Escherichia coli) were incubated together for 30 minutes at 37 deg. C, then non-adherent bacteria separated, (A) washed and the number of germs attached to (A) determined by microscopy. Preincubation of (A) with (I) for 1-3 hr, reduced the number of bacteria (all strains tested) by over 95%.
USE - (I) are used:
(i) in preparation of **foods** and condiments, particularly to reduce the glycemic index of such products; and
(ii) optionally when included in **foods**, for therapeutic or prophylactic inhibition of infection, **intestinal** disorders, colonic cancer, **inflammation** and/or osteoporosis; also to strengthen the immune system and (not claimed) for treatment or prevention of type II diabetes mellitus.
(I) can also be used diagnostically.
ADVANTAGE - (I) are stable against hydrolysis in the mouth, stomach and small **intestines**, so reach the colon unchanged.
Dwg.0/0

TECH UPTX: 20010719
TECHNOLOGY FOCUS - BIOLOGY - Preferred Materials: (I) have DP 2-7. The enzyme is from B. subtilis, especially strain DSM 13182, and is in the form of living or dead cells, isolated enzyme or crude extract, all of which may be immobilized. The mixture of (I) may be separated by chromatography. Suitable sources of (II) include guar, cassia and carob bean.
Preferred Process: A 1-5% solution of (II) is incubated at pH 5-8 and 30-40degreesC.

L18 ANSWER 11 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-138142 [14] WPIDS
DNC C2001-040684
TI Recombinant Lactococcus lactis for delivering a trefoil peptide useful for treating acute or chronic gastrointestinal **inflammatory** diseases or disorders, e.g. acute or ulcerative colitis, acute flare-ups of Crohn's disease.
DC B04 C03 D16
IN HANS, W C; REMAUT, E R; STEIDLER, L
PA (VLAA-N) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG
CYC 94
PI WO 2001002570 A1 20010111 (200114)* EN 59p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI

SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000066892 A 20010122 (200125)
EP 1194554 A1 20020410 (200232) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
ADT WO 2001002570 A1 WO 2000-EP6343 20000705; AU 2000066892 A AU 2000-66892 20000705; EP 1194554 A1 EP 2000-954434 20000705, WO 2000-EP6343 20000705
FDT AU 2000066892 A Based on WO 200102570; EP 1194554 A1 Based on WO 200102570
PRAI EP 1999-870143 19990705
AB WO 200102570 A UPAB: 20010312
NOVELTY - A recombinant Lactococcus lactis capable of delivering a trefoil peptide in vivo, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method for the delivery of trefoil peptide to the gastrointestinal tract by administering the recombinant microorganism;

(2) methods of treating gastric and/or **intestinal** diseases and/or disorders, or lesions caused by these disorders;

(3) a method for producing a microorganism able to deliver trefoil peptide by transforming a microorganism with a recombinant vector carrying a trefoil peptide coding sequence under the control of a promoter and a secretion signal sequence; and

(4) a recombinant vector comprising a trefoil peptide coding sequence under the control of a promoter sequence and a secretion signal sequence.

ACTIVITY - **Antiinflammatory**; gastrointestinal; anti-ulcer.

The effect of trefoil peptides expressed from L. lactis was tested in mice suffering from acute colitis. 21 female Balb/c mice received 5% **dextrane** sodium sulfate to induce acute colitis. For therapeutic purposes, mice were orally inoculated daily with 100 mu l bacterial suspension (108 cells) from day 1-7. 6 Mice were inoculated with MG1363 (pTREX1) cells, 6 were inoculated with MG1363 (pT1mTFF1) cells, and 3 served as controls. On day 8 after induction of colitis, mice were sacrificed and examined for immunological and histological testing. Results showed that there was a clear decrease of **inflammation** upon inoculation of mice with L. lactis cells producing trefoil peptides. There was a 65% reduction of **inflammation** in mice that received (pT1mTFF1)-transformed L. lactis cells. **Inflammatory** infiltration and epithelial damage in the distal part of the colon were significantly decreased following inoculation with recombinant L. lactis strains which secrete mTFF1 polypeptide.

MECHANISM OF ACTION - Peptide therapy.

USE - The recombinant microorganism is useful for the manufacturing an agent for the delivery of a trefoil peptide to the gastrointestinal tract, and for treating gastric or **intestinal** diseases or disorders, or lesions caused by gastric or **intestinal** diseases or disorders. The microorganism may also be used for preparing medicament to be used for treating gastric and /or gastrointestinal diseases or disorders, acute gastrointestinal **inflammatory** diseases (e.g., acute colitis, acute flare-ups of Crohn's diseases, or ulcerative colitis), and chronic and spontaneously recurring diseases of the gastrointestinal tract comprising Crohn's disease (enteritis regionalis) and ulcerative colitis (colitis ulcerosa) (all claimed). Disease states which can be treated by the method or compositions comprising the recombinant microorganism or trefoil peptides, include disorders of and damage to the alimentary canal, including the mouth, esophagus, stomach and large and small **intestine**, as well as for the protection and treatment of tissues that lie outside the alimentary canal.

Dwg.0/8

TECH UPTX: 20010312
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Microorganism: A

microorganism is a bacterial strain, preferably a **food** grade bacterial strain, specifically a gram-positive bacterial strain. The bacterial strain consists of Lactococcus or a Lactobacillus species, particularly Lactococcus lactis.
Preferred Peptide: The trefoil peptide is TFF1.
Preferred Vector: The recombinant vector has a fully defined sequence of 5142, 5497 or 8241 bp given in the specification.
Preparation: The microorganism is prepared by transforming a microorganism with a recombinant vector carrying a trefoil peptide coding sequence under the control of a promoter and a secretion signal sequence.

L18 ANSWER 12 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-628312 [60] WPIDS
DNC C2000-188278
TI **Nutritional** composition containing weakly acidic polysaccharide, useful to prevent or treat e.g. **allergy**, inhibits transport of macromolecules through the **intestine**.
DC B04 **D13**
IN BIJLSMA, P B; GROOT, J A; KILIAAN, A J; TIMMERMANS, J W; VAN DER MEULEN, J
PA (NUTR-N) NUTRICIA NV
CYC 93
PI WO 2000057727 A1 20001005 (200060)* EN 19p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
NL 1011680 C2 20000927 (200105)
AU 2000035755 A 20001016 (200106)
EP 1164874 A1 20020102 (200209) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
CN 1345189 A 20020417 (200248)
ADT WO 2000057727 A1 WO 2000-NL187 20000321; NL 1011680 C2 NL 1999-1011680 19990326; AU 2000035755 A AU 2000-35755 20000321; EP 1164874 A1 EP 2000-914366 20000321, WO 2000-NL187 20000321; CN 1345189 A CN 2000-805565 20000321
FDT AU 2000035755 A Based on WO 200057727; EP 1164874 A1 Based on WO 200057727
PRAI NL 1999-1011680 19990326
AB WO 200057727 A UPAB: 20001123
NOVELTY - A **nutritional** composition (A) containing a slightly negatively charged, non-**digestible** polysaccharide (I) of molecular weight 8-40000 kDa, where the increase in viscosity caused by (I) is less than 20 mPa.s, is new.
ACTIVITY - **Antiallergic**; **antibacterial**; anti-**inflammatory**; antiulcer;
MECHANISM OF ACTION - (A) reduce **uptake** of **high molecular** weight substances, **allergens** and microorganisms through the **intestinal** wall, specifically transport through tight **junctions**. A section of rat ileum was tested in vitro for transport of horseradish peroxidase, induced by carbachol (a known opener of tight **junctions**). A carboxydextran derivative of 150 kDa caused 60 % inhibition of induced transport, compared with only 20 % for a similar **dextran** that had not been carboxylated.
USE - (A) is used to treat or prevent **allergy** (e.g. **food allergies** to gluten or cow's milk), **sepsis** or **inflammatory** processes, e.g. where caused by physical or emotional stress, **ischemia**, or **reperfusion** damage

during or after surgery; following radiation and/or chemotherapy for cancer, and in cases of **inflammatory intestinal** disease (e.g. ulcerative colitis, Crohn's disease or **food** poisoning). (A) may also be used in agriculture, e.g. in post-weaning piglet **feeds** or to reduce stress during transport.

ADVANTAGE - (I) selectively inhibit **intestinal** transport of high molecular weight substances but not transport of smaller molecules such as nutrients.

Dwg.0/2

TECH UPTX: 20001123

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Polysaccharide: At pH 5.5-8, (I) contain one negatively charged group per 3-10000, preferably 10-10000, saccharide units, and the negative charge is provided by phosphate, sulfate or preferably carboxylate. (I) is produced by introducing acid groups into **dextrans**, slightly hydrolyzed neutral **galactomannans**, neutral **glucomannans** or arabinoxylans. (I) is preferably carboxylated **dextran** of 20-2000 kDa.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The composition contains enough (I) to provide a concentration in the **intestines** of 0.1-20, especially 1-6, g/l. The compositions are complete **foods** or **food** supplements, but may also be health-promoting products or tube **feeds**. The compositions have viscosity below 100, preferably 30, mPa.s, and the increase caused by (I) is less than 10 mPa.s.

L18 ANSWER 13 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 1997-319033 [29] WPIDS
CR 1997-280242 [25]
DNC C1997-102978
TI Medical **food** composition for metabolic detoxification - containing specific protein, carbohydrate, mineral, vitamin and aminoacid components to promote hepatic enzymatic detoxification.
DC B05 **D13**
IN BLAND, J S
PA (BLAN-I) BLAND J S
CYC 1
PI US 5637324 A 19970610 (199729)* 8p
ADT US 5637324 A Cont of US 1991-815290 19911231, Div ex US 1993-156090 19931122, US 1995-463628 19950606
PRAI US 1991-815290 19911231; US 1993-156090 19931122; US 1995-463628 19950606
AB US 5637324 A UPAB: 19970806
A composition (I) for **nutrition** and metabolic detoxification comprises (by weight): (a) 45-65% of a grain or vegetable protein concentrate; (b) 2.5-17.5% grain syrup solids containing at least 50 wt. % **dextran**; (c) 2.5-17.5% grain syrup solids containing at least 50 wt. % maltose; (d) 3-12% olive, canola, sunflower, safflower or peanut oil, containing at least 20 wt.% oleic acid; (e) 1-11% medium chain triglycerides having 8-14C fatty acid moieties; (f) a soluble magnesium salt having an equivalent Mg content to 0.01-0.06% magnesium citrate; (g) a buffering agent equivalent in its buffering capacity to 0.5-2.5% dipotassium phosphate; (h) a calcium salt equivalent in Ca content to 0.01-0.065% calcium citrate; (i) an ascorbic acid derivative equivalent to 0.05-0.25% calcium ascorbate; (j) 0.40-0.65% beta -carotene (or a carotenoid mixture having equivalent vitamin A activity); (k) 0.1-0.4% D-alpha -tocopherol (or an equivalent quantity of its derivative) (l) a source of tri- or hexavalent chromium ions in an amount equivalent to 0.04-0.12% chromium polynicotinate; (m) 0.008-0.022% glutathione; (n)

0.08-0.22% N-acetylcysteine; (o) 0.08-0.22% L-lysine hydrochloride (or an equivalent amount of the free base or another salt); (p) 0.08-0.22% L-threonine; (q) 0.08-0.22% L-cysteine; and (r) a zinc salt in an amount equivalent to 0.08-0.22% zinc methionate. Also claimed is a process for metabolically detoxifying a human patient by administering a diet containing a substantial portion of (I) for at least 4 days.

USE - (I) is a medicinal **food**/enteral **nutrition** product, which is taken alone or in combination with suitable conventional foodstuffs to upgrade hepatic detoxification systems and reduce symptoms associated with endotoxicity and exotoxicity. The rate of clearance of from the body of accumulated undesirable non-end product metabolites and toxins is markedly increased. (I) is useful for combatting chronic symptoms (e.g. fatigue, hypotonia, depression, lassitude, muscle weakness, insomnia, bad dreams, **intestinal** complaints, myalgia, confusion and functional nervous system disorders) associated with unidentified environmental or metabolic causes. Metabolites and toxins to be eliminated are e.g. environmental contaminants, poisons, **allergens**, chemicals, pesticide residues, toxic trace elements, drugs and products formed in the body during states of altered metabolism.

ADVANTAGE - (I) contains no (or only minimal amounts of) **allergens**, sources of toxic metabolites, cholesterol, fatty acids convertible into cholesterol and sodium ions, and provides all the nutrients and vitamins required for a balanced diet.

Dwg.0/0

L18 ANSWER 14 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 1994-290845 [36] WPIDS
DNC C1994-132596
TI **Diarrhoea** preventive or improving drug for use in **food** or animal **feed** - contains cellulose powder pref. compounded or dispersed homogeneously.
DC B04 C03 **D13**
PA (AJIN) AJINOMOTO KK
CYC 1
PI JP 06219953 A 19940809 (199436)* 5p
ADT JP 06219953 A JP 1993-29602 19930127
PRAI JP 1993-29602 19930127
AB JP 06219953 A UPAB: 19941102

Diarrhoea preventive or improving drug contains cellulose powder pref. disperse or compounded homogeneously. The powder pref. hemicellulose pref. plant-derived or pref. microorganism-derived e.g. cellulose powder of dia. under 200 microns and over 5 microns and pref. at 75% or over of the total cellulose powder as its active component.

Also new are (i) **diarrhoea** preventing or improving **food** prepd. by disperse or compounding pref. homogeneously, the **diarrhoea** preventive/improving drug in a **food**, and (ii) a **feed** prepd. by disperse or compounding pref. homogeneously, the **diarrhoea** preventive or improving drug in the **feed**

ADVANTAGE - The drug, **food** or **feed** may be given to humans or animals, promptly improving **diarrhoea** esp. **diarrhoea** frequently occurring during admin. of trans **intestinal** nutrients or conc. nutrient fluids.

In an example, 25 8-week old make SD rats were given for one week, a conc. nutrient fluid (Medief Liquid (RTM)) at 40 kcal/day. On day 6, all rats showed watery or mud-like **diarrhoea**. On day 7 5 of rats were given cellulose powder derived from pulp (5-200 microns, at least 90%, mol. wt. 10000-100000). For control, 5 **diarrhoea** rats were given no additives. For comparison, methoxy-pectin, **galactomannan** and carrot powder (Carrotte (RTM)) were administered to 5 of

diarrhoea rats, respectively. THe cellulose-treated gp. showed marked improvement with **diarrhoea** symptoms to point of normal stool. Control gp. showed aggravation of **diarrhoea**. The methoxy-pectin and **galactomannan**-treated gps. showed aggravation. The carrot gp. only showed a slight improvement.
Dwg.0/0

L18 ANSWER 15 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 1989-009927 [02] WPIDS
DNC C1989-004595
TI Metallo-protein recovery from whey - by adsorption on aminated polysaccharide bearing acid gps..
DC B04 **D13**
IN FRANKINET, J; PEYROUSSET, A; SPRING, F; PEYROUSET, A
PA (ENTR-N) ENTREMONT SA; (ERAP) SOC NAT ELF AQUITAINE
CYC 22
PI EP 298875 A 19890111 (198902)* FR 8p
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
AU 8818136 A 19881222 (198907)
FR 2616628 A 19881223 (198907)
DK 8803329 A 19881220 (198910)
FI 8802918 A 19881220 (198915)
ZA 8804267 A 19890329 (198918)
JP 01086839 A 19890331 (198919)
CN 1030005 A 19890104 (198949)
US 4946944 A 19900807 (199034)
IL 86713 A 19910610 (199130)
EP 298875 B 19910821 (199134)
R: AT BE CH DE ES FR GB GR IT LI LU NL SE
DE 3864339 G 19910926 (199140)
ES 2024682 B 19920301 (199214)
CA 1330769 C 19940719 (199434) FR
FI 93163 B 19941130 (199502)
JP 2710283 B2 19980210 (199811) 7p
DK 173506 B 20010115 (200106)
ADT EP 298875 A EP 1988-420197 19880614; FR 2616628 A FR 1987-8843 19870619; ZA 8804267 A ZA 1988-4267 19880615; JP 01086839 A JP 1988-152097 19880620; US 4946944 A US 1989-396821 19890821; CA 1330769 C CA 1988-570296 19880617; FI 93163 B FI 1988-2918 19880617; JP 2710283 B2 JP 1988-152097 19880620; DK 173506 B DK 1988-3329 19880617
FDT FI 93163 B Previous Publ. FI 8802918; JP 2710283 B2 Previous Publ. JP 01086839; DK 173506 B Previous Publ. DK 8803329
PRAI FR 1987-8843 19870619
AB EP 298875 A UPAB: 19930923
Isolation of metalloproteins (I) from whey is effected by adsorbing (I) on a granular porous mineral support and then eluting (I) with solvents. The support granules are coated with an aminated polysaccharide bearing surface acid gps.

The support comprises silica spheres coated with diethylaminoethyl **dextran** and grafted with carboxymethyl or sulphopropyl gps., e.g. 'CM Spherodex LS' or 'SP Spherodex LS'. The two types may also be used simultaneously in successive beds.

USE/ADVANTAGE - The process is esp. useful for isolating lactoferrin (Ia) and lactoperoxidase (Ib) from sweet whey. (I) are useful for **nutritional** and pharmacological purposes, e.g., as Fe sources and **antibacterial** agents. The process is highly selective, giving high yields of (I) while leaving the whey still suitable for use, e.g., in animal **feed** mfr.
0/1

L18 ANSWER 16 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 1985-211587 [35] WPIDS
DNC C1985-092047
TI Enteral feeding formulation comprising **dextran** - as bulking agent, e.g. for use in treating **intestinal** disturbances.
DC B04 **D13** D16
IN ALSOP, R M; MILNER, J
PA (FISO) FISONS PLC
CYC 14
PI EP 153013 A 19850828 (198535)* EN 18p
R: AT BE CH DE FR GB IT LI LU NL SE
AU 8538193 A 19850808 (198539)
DK 8500396 A 19850802 (198544)
JP 60188403 A 19850925 (198545)
EP 153013 B 19900905 (199036)
R: AT BE CH DE FR GB IT LI LU NL SE
DE 3579471 G 19901011 (199042)
ADT EP 153013 A EP 1985-300370 19850121; JP 60188403 A JP 1985-15620 19850131
PRAI GB 1984-2573 19840201
AB EP 153013 A UPAB: 19930925
Human enteral formulation comprises a bulking proportion of **dextran** of ave. mol. wt. 10000-50 million, esp. 50,000-400,000. Pref. formulation comprises 0.5-30 wt.% **dextran**, esp. 0.5-7.0 wt.% for liq. formulations. Pref. **dextran** is that produced by Leuconostoc mesenteroides.

USE/ADVANTAGE - Esp. used as low calorie liq. formulations for enteral feeding, opt. by nasogastric tube, in or during treatment of e.g. Crohn's disease, ulcerative colitis, proctitis, coeliac disease, regional ileitis, irritable bowel syndrome, etc., and in controlling blood glucose levels of diabetics and/or controlling calorie intake for weight control. The **dextran** is not appreciably absorbed in the gastrointestinal tract, and so do not produce a surge of blood sugar or insulin after ingestion. They can also reduce absorption of other carbohydrates, e.g. glucose, and act to promote the passage of material through the gastrointestinal tract. In liq. formulations, the **dextran** provides thickening and a pleasant mouth feel, and give a feeling of bulk in the stomach. The **dextran** also has some **antibacterial** action and/or promotes a favourable balance of bacteria in the gut. Compsns. also assist in passing potentially toxic prods. through the gut before they can be absorbed.
0/0

L18 ANSWER 17 OF 17 WPIDS (C) 2002 THOMSON DERWENT
AN 1984-190753 [31] WPIDS
DNC C1984-080093
TI Alpha-glycosyl ginsenoside derivs. - useful in foodstuffs, pharmaceuticals, etc..
DC B04 **D13** E15 P15
IN HIJIYA, H; MATSUMOTO, T; MIYAKE, T; SUZUKI, S
PA (HAYB) HAYASHIBARA SEIBUTSU KAGAKU; (LOTT) LOTTE CO LTD; (HAYB) HAYASHIBARA SEIBUTSU CHEM INST CO LTD
CYC 5
PI FR 2538395 A 19840629 (198431)* 31p
JP 59118053 A 19840707 (198433)
US 4621137 A 19861104 (198647)
JP 03006783 B 19910130 (199108)
KR 9201556 B1 19920218 (199342)
ADT FR 2538395 A FR 1983-20660 19831223; JP 59118053 A JP 1982-225809 19821224; US 4621137 A US 1983-562221 19831216; JP 03006783 B JP 1982-225809 19821224; KR 9201556 B1 KR 1983-6125 19831223

PRAI JP 1982-225809 19821224
AB FR 2538395 A UPAB: 19930925
Ginsenoside deriv. (I) has one or more alpha-glucosyl gps. attached to the ginsenoside residue.
(I) is prepd. by treating an aq. soln. contg. ginsenoside (II) and an alpha-glucosyl saccharide (III) with an alpha-glucosyl transferase enzyme, esp. alpha-glucosidase, alpha-amylase, cyclodextrin glucanotransferase, **dextran** sucrase, **dextran** extrinase or amylosucrase.
(III) is a malto-oligosaccharide, liquefied starch, a partial starch hydrolysate or sucrose. The reaction is pref. effected at 20-80 deg. C and pH 3-10 using an aq. soln. contg. 0.1-30 wt.% (II) and 1-50 wt.% (III), with a (II):(III) wt. ratio of 0.5-300:1.
USE/ADVANTAGE - (I) can be used in foodstuffs, drinks, tobacco, cosmetics, dentifrices, pharmaceutical compsns., etc. It has all the medicinal properties of ginsenoside without its unpleasant flavour.
0/1

L22 ANSWER 1 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2002-155719 [21] WPIDS
DNC C2002-048826
TI Retarded release oral dosage form, obtained by granulating mixture containing active agent and polyvinyl acetate-polyvinyl pyrrolidone mixture below the melting temperature.
DC A11 A14 A25 A96 **B04** B07
IN ASCHERL, H; FLICK, D; KOLTER, K
PA (BADI) BASF AG; (ASCH-I) ASCHERL H; (FLIC-I) FLICK D; (KOLT-I) KOLTER K
CYC 29
PI DE 10029201 A1 20011220 (200221)* 13p
EP 1166776 A2 20020102 (200221) DE
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
US 2002012701 A1 20020131 (200221)
JP 2002020319 A 20020123 (200222) 13p
CN 1328811 A 20020102 (200227)
ADT DE 10029201 A1 DE 2000-10029201 20000619; EP 1166776 A2 EP 2001-111614 20010512; US 2002012701 A1 US 2001-873431 20010605; JP 2002020319 A JP 2001-177575 20010612; CN 1328811 A CN 2001-121669 20010619
PRAI DE 2000-10029201 20000619
AB DE 10029201 A UPAB: 20020403
NOVELTY - Production of an oral dosage form (I) providing retarded active agent release, comprising:
(a) a formulated mixture of polyvinyl acetate and polyvinyl pyrrolidone;
(b) active agent(s);
(c) optionally water-soluble polymers or lipophilic additives; and
(d) optionally further conventional auxiliaries,
involves granulating a mixture of (a), (b) and optionally (c) and/or (d) under heating at 40-130 degrees C.
DETAILED DESCRIPTION - Production of an oral dosage form (I) providing retarded active agent release, comprising:
(a) a formulated mixture of polyvinyl acetate (PVAc) and polyvinyl pyrrolidone (PVP);
(b) active agent(s);
(c) optionally water-soluble polymers or low or high molecular lipophilic additives; and
(d) optionally further conventional auxiliaries,
(e) involves granulating a mixture of (a), (b) and optionally (c)

and/or (d) under heating at 40-130 degrees C.

INDEPENDENT CLAIMS are included for:

(i) the obtained oral formulations (I);

(ii) retarded release medicaments containing (I).

USE - (I) is specifically pressed to form tablets (claimed). The use of (I) is claimed for the preparation of retarded drug release medicaments; or for retarded release of **food** supplements or additive, vitamins, minerals or trace elements.

ADVANTAGE - The PVAc/PVP mixture acts simultaneously as binder, matrix former and retarding agent; it does not need to be melted, but becomes tacky at the surface to allow granulation at temperatures as low as 35 deg. C (due to the low glass transition temperature of PVAc). Retarded release formulations containing water-soluble or water-insoluble, basic or acidic, heat-sensitive or -insensitive, low- or high-melting active agents can thus be prepared by a simple, rapid and inexpensive method. (I) have good physical properties, and can be tableted to provided high-dose retarded release medicaments having good mechanical properties. The granulation method can be carried out as a one-pot system, and can be applied to drugs (e.g. paracetamol) which are normally difficult to process.

Dwg.0/0

TECH UPTX: 20020403

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Active Agents: Drugs (b) are selected from benzodiazepine, antihypertensives, vitamins, cytostatics, anesthetics, neuroleptics, antidepressants, antibiotics, antimycotics, fungicides, chemotherapeutic agents, urological agents, thrombocyte aggregation inhibitors, sulfonamide, spasmolytics, hormones, immunoglobulins, srea, thyroid hormones, psychic drugs, antiparkinsonian or other antihyperkinetic agents, ophthalmological drugs, anti-neuropathic agents, calcium metabolism regulators, muscle relaxants, narcotics, hypolipemic agents, hepatic drugs, coronary or cardiac drugs, immunotherapeutic agents, regulatory peptides or their inhibitors, hypnotics, sedatives, gynecological agents, anti-gout agents, fibrinolytic agents, enzymes or their inhibitors, transport proteins, emetics, blood flow promoters, diuretics, diagnostic agents, corticoids, cholinergic agents, biliary drugs, antiasthmatic agents, broncholytics, beta-blockers, calcium antagonists, ACE inhibitors, anti-arteriosclerotic agents, antiepileptic agents, antiemetics, antidotes, antidiabetic agents, antiarrhythmic agents, antianemic agents, **antiallergic** agents, anthelmintics, analgesics, analeptics, aldosterone antagonists or slimming agents.

Preferred Process: The ratio of PVAc to PVP is 6:4 to 9:1 and the ratio of active agent to retarding agent is 5:95 to 85:15. The grain size of the active agent (b) is 20-700 mum. Granulation is carried out continuously or discontinuously at 45-100 degreesC, by mixer, fluidized bed or extrusion granulation. The granulate is further processed by forced screening, in the hot or cold state. Retarding auxiliaries (in addition to the PVAc/PVP mixture) may be added before, during or after granulation.

Preferred Components: The release modifying auxiliaries are:

(i) water-soluble swelling agents, specifically selected from alginates, pectins, **galactomannans**, carrageenans, **dextran**, curdlan, pullulan, gellan, chitin, gelatin, hemicellulose, cellulose derivatives (e.g. methyl, hydroxypropyl-methyl, hydroxypropyl, hydroxyethyl or carboxymethyl cellulose), starch derivatives (e.g. carboxymethyl starch or degraded starch), poly(meth)acrylic acid, acrylic-methacrylic acid copolymers, polyvinyl alcohol, high molecular polyethylene glycol, polyoxyethylene-polyoxypropylene block copolymers, high molecular PVP and their derivatives; or

(ii) lipophilic materials, specifically selected from fatty alcohols or acids (e.g. stearyl alcohol or stearic acid) or their esters, lipophilic

polymers (e.g. ethyl cellulose, cellulose acetate, acrylate ester-methacrylate ester copolymers, methacrylic acid-acrylic acid-ester copolymers, cellulose acetate-phthalate, cellulose acetate-succinate, hydroxypropyl methyl cellulose acetate-phthalate or hydroxypropyl methyl cellulose acetate-succinate) or their derivatives. The auxiliaries (d) are fillers (specifically lactose, cellulose powder, mannitol, calcium diphosphate or starch), disintegrating agents, adsorbents, lubricants, flow agents, dyes, stabilizers, antioxidants, wetting agents, preservatives, mold release agents, aromsas or sweeteners.

TECHNOLOGY FOCUS - POLYMERS - Preferred Materials: The PVAc and PVP each have a molecular weight of 20000-1000000. Release-modifying auxiliaries include cellulose derivatives (e.g. methyl, hydroxypropyl-methyl, hydroxypropyl, hydroxyethyl or carboxymethyl cellulose), starch derivatives (e.g. carboxymethyl starch or degraded starch), poly(meth)acrylic acid, acrylic-methacrylic acid copolymers, polyvinyl alcohol, high molecular polyethylene glycol, polyoxyethylene-polyoxypropylene block copolymers, high molecular PVP or lipophilic polymers (e.g. ethyl cellulose, cellulose acetate, acrylate ester-methacrylate ester copolymers, methacrylic acid-acrylic acid-ester copolymers, cellulose acetate-phthalate, cellulose acetate-succinate, hydroxypropyl methyl cellulose acetate-phthalate or hydroxypropyl methyl cellulose acetate-succinate). The water-soluble polymers (c) are selected from polyvinyl alcohol, polyethylene glycol, polyoxyethylene-polyoxypropylene block copolymers, PVP (or derivatives), vinyl acetate-vinyl pyrrolidone copolymers or maltodextrins.

L22 ANSWER 2 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-488088 [53] WPIDS
CR 1993-094021 [11]; 1998-397977 [34]; 2000-052537 [04]
DNC C2001-146383
TI New dried chemical reagent composition useful for analysis of biological samples such as blood in centrifugal analyzers comprises dried beads having a specific diameter and a coefficient of weight variation.
DC A96 **B04**
IN BHAYANI, B; BUHL, S N; TANG, T N; YU, C
PA (ABAX-N) ABAXIS INC
CYC 1
PI US 6251684 B1 20010626 (200153)* 9p
ADT US 6251684 B1 CIP of US 1991-747179 19910818, Cont of US 1993-134574 19931008, Div ex US 1995-466155 19950606, US 1998-66081 19980424
FDT US 6251684 B1 CIP of US 5413732, Div ex US 5776563
PRAI US 1993-134574 19931008; US 1991-747179 19910818; US 1995-466155 19950606; US 1998-66081 19980424
AB US 6251684 B UPAB: 20010919
NOVELTY - A dried chemical reagent composition comprises several dried beads having a coefficient of weight variation of less than about 3% and a diameter of about 1.5 - 10 mm or the equivalents.
USE - For determination of total protein in a blood sample (claimed); in preparation of pharmaceutical compositions including therapeutically active compounds such as analgesics, steroidal and non-steroidal anti-**inflammatory** compounds, immunosupressants, chemotherapeutic agents, antibiotics, vitamins, other **nutritional** additives e.g. trace elements and amino acids, plasma fractions e.g. factor IX and hormones; and analytical reagents; in analyzing soil samples, industrial chemicals, **food** chemicals, agricultural chemicals, biological fluids such as blood, plasma, serum, urine, sputum, semen, saliva, ocular lens fluid, cerebral fluid, spinal fluid, amniotic fluid, and tissue culture media in centrifugal rotors and analyzers; in immunoassays and other binding assays by incorporation of antibodies; also useful in

preservation of biological materials such as blood, plasma, urine, tissue samples and various proteins, e.g. blood factors, immunoglobulins, enzymes, and genetic material e.g. DNA or RNA, in dried form.

ADVANTAGE - The composition is dry, stable, free-flowing and in the form of a homogeneous mixture of components in a precise ratio. The composition quickly, particularly in less than 10 seconds provides precisely measured quantities of particular component upon dissolution in sample solutions having a volume of 1.5 - 25 micro l. Thus, the problems of accurately dispensing dry mixtures is avoided by using the composition. Use of the composition in centrifugal rotors and analyzers, allows rapid and economical analysis of blood samples.

Dwg.0/0

TECH UPTX: 20010919

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Beads: The beads comprise reagents necessary for the analysis of a biological sample (preferably potassium oxalate), a surfactant (preferably octoxynol 9, Brij-35, or Brij-58) at a concentration to inhibit bubble formation when the beads dissolve in a solution, and a filler (preferably myo-inositol, **dextran**, sodium cholate and/or mannitol) in a concentration of facilitate formation of a chemical lattice capable of conducting the solution into the beads. Each bead completely dissolves in less than about 20 microliter of solution (preferably an aqueous solution) in less than about 10 seconds. The dried beads have the coefficient of weight variation of about 0.3 - 2.5% and comprise a residual moisture (less than about 6, preferably less than about 3)%. The dried beads are produced from precisely measured drops of a homogeneous solution which is degassed before dispensing the drops. The beads have a diameter of less than about 5 (preferably less than about 3.5) mm.

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The filler is polyethylene glycol and/or polyvinylpyrrolidone. The surfactant is polyoxyethylene 9 lauryl ether. The filler and the surfactant used for determination of total protein in a blood sample are polyethylene glycol and polyoxyethylene 9 lauryl ether, respectively.

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Beads: The beads comprise sodium fluoride as the reagent necessary for the analysis of the biological sample.

L22 ANSWER 3 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-441766 [47] WPIDS
DNC C2001-133506
TI New animal **feed** containing 0-04-2 weight/weight% simple polysaccharide on the basis of solid powder, useful for improving the condition of evacuation, preventing **diarrhea** and promoting growth..
DC **B04** C03 **D13** D16
IN LEE, S G; SONG, G B; YOON, B D; KIM, C; RHEE, S; SONG, K; YOON, B
PA (KORE-N) KOREA RES INST BIOSCIENCE & BIOTECHNOLOG; (REAL-N) REALBIOTECH LTD
CYC 94
PI WO 2001049127 A1 20010712 (200147)* EN 13p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2001024085 A 20010716 (200169)
KR 2001068634 A 20010723 (200203)

ADT WO 2001049127 A1 WO 2000-KR1556 20001229; AU 2001024085 A AU 2001-24085 20001229; KR 2001068634 A KR 2000-646 20000107
FDT AU 2001024085 A Based on WO 200149127
PRAI KR 2000-646 20000107
AB WO 200149127 A UPAB: 20010822
NOVELTY - An animal **feed** containing 0-04-2 weight/weight% simple polysaccharide on the basis of solid powder, is new.
ACTIVITY - **Antidiarrheal**.
No biological data is given.
MECHANISM OF ACTION - None given.
USE - The **feed** is useful for improving the condition of evacuation, preventing **diarrhea** and promoting growth of animals.
Dwg.0/0
TECH UPTX: 20010822
TECHNOLOGY FOCUS - **FOOD** - Preferred Components: The polysaccharide is contained by a transgenic plant which has been transformed with a gene encoding the simple-polysaccharide synthesis enzyme. The polysaccharide is levan, **dextran**, alternan, mutan, and/or inulin or a mixture of these with glucose, fructose or sugar. The levan is induced from sugar using levansucrase.

L22 ANSWER 4 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-412362 [44] WPIDS
DNN N2001-305026 DNC C2001-125004
TI Microbicide and preservative, comprises salt formed by reacting thiamin derivative and specific surfactants and chitosan derivative obtained by reacting chitosan and saccharides having reducible terminals.
DC **B04 D13** D21 D22 P34
PA (ICHP) ICHIMARU PHARCOS INC; (NETE-N) NETEKKU KK; (YAES-N) YAESU SUISAN KAGAKU KOGYO KK
CYC 1
PI JP 2001081027 A 20010327 (200144)* 20p
ADT JP 2001081027 A JP 1999-256375 19990909
PRAI JP 1999-256375 19990909
AB JP2001081027 A UPAB: 20010809
NOVELTY - Microbicide and preservative comprises a salt formed by reacting thiamin derivative and surfactant(s) of higher alcohol sulfuric esters or alkyl sulfonic acid and/or their salts, and chitosan derivative obtained by reacting chitosan and saccharides having reducible terminals.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also claimed for:
(1) a skin external preparation comprising microbicide and preservative;
(2) a fiber cleaner; and
(3) a detergent and deodorizer comprising microbiocidal and preservative.
ACTIVITY - **Antibacterial**, dermatological.
MECHANISM OF ACTION - None given.
USE - The microbiocide and preservative can be used as a drug, in cosmetics and as a quasi drug, a bath agent, a fiber treating agent e.g. softening agent, bleaching agent, sizing agent and stain removing adjuvant, a detergent for washing, cleaning and deodorizing toilet fixtures, and as preservative for **food** and beverage products.
ADVANTAGE - The agent has excellent microbiocidal and preservative effect, and is safe to use. The decomposition and contamination of **food** products can be prevented effectively. The microbicide and preservative was administered orally to DDY type mice at a dose of 2000 mg/kg to evaluate toxic symptoms. The symptoms were observed in time dependent manner and no toxic effects were observed.
Dwg.0/0
TECH UPTX: 20010809

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The thiamin derivative is thiamine hydrochloride, thiamine sulfate, thiamine nitrate, thiamine monophosphate, o-benzoyl thiamine disulfide, butyryl thiamine disulfide or thiamine tetrahydro furfuryl disulfide. The saccharides having reducible terminals is aldose, ketose, glucose, galactose, amino sugars such as glucose amine, maltose, lactose or **dextran** (disclosed).

L22 ANSWER 5 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2001-127323 [14] WPIDS
DNC C2001-037356
TI Xanthine oxidase inhibitor for preventing or treating hyperuricemia such as gout and encephalopathy, comprises a component extracted from a Lagerstroemia speciosa plant as active ingredient.
DC **B04**
IN KAKUDA, T; SAKANE, I; UNNO, T
PA (ITOE-N) ITO EN LTD
CYC 2
PI JP 2000290188 A 20001017 (200114)* 7p
US 2002051825 A1 20020502 (200234)
ADT JP 2000290188 A JP 1999-98011 19990405; US 2002051825 A1 Div ex US 2000-661568 20000914, US 2001-13351 20011213
PRAI JP 1999-98011 19990405
AB JP2000290188 A UPAB: 20020528
NOVELTY - Xanthine oxidase inhibitor comprises a component extracted from a plant of Lagerstroemia speciosa (banaba) as an active ingredient.
ACTIVITY - Antigout; **antiinflammatory**; cytostatic; antiarteriosclerotic; antihyperuricemia.
No biological details are given.
MECHANISM OF ACTION - Xanthine oxidase inhibitor.
The amount of uric acid formed by xanthine oxidase, from a xanthine substrate was measured in a spectrophotometer. A sample containing xanthine oxidase inhibitor was added to the substrate and the amount of uric acid inhibited was measured. The inhibitor was shown to be effective at inhibiting xanthine oxidase.
USE - Xanthine oxidase is useful for preventing or treating hyperuricemia such as gout and conditions such as **inflammation**, ageing, carcinoma, arteriosclerosis and encephalopathy in form of a drug, cosmetics, health **food** or drink.
ADVANTAGE - The inhibitor is highly safe without any side effects. The inhibitor has an improved synergistic effect when co-administered with antihyperuricemic agents such as probene acid, alloxanthine, allopurinol, benzbromarone and uric acid diuretics.
Dwg.0/5
TECH UPTX: 20010312
TECHNOLOGY FOCUS - BIOLOGY - Preferred Process: A crude extract of plant is obtained using hot water and/or an organic solvent such as chloroform, hexane, ethyl acetate or butanol. A resin adsorption component such as styrene-divinylbenzene or **dextran** group synthetic resin is used to adsorb the active ingredient present in the crude extract. The organic solvent soluble fractions such as ellagic acid derivative or its analog xanthine oxidase inhibitor and/or lignans distributed in the organic solvent are also separated. The obtained fractions are purified by high performance chromatography.

L22 ANSWER 6 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-594642 [56] WPIDS
DNC C2000-177659
TI Isolated nucleic acid molecule encoding a human secreted protein is used in preventing, treating or ameliorating a medical condition.

DC **B04** D16
IN KOMATSOULIS, G; ROSEN, C A; RUBEN, S M
PA (HUMA-N) HUMAN GENOME SCI INC
CYC 91
PI WO 2000058469 A1 20001005 (200056)* EN 415p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000039087 A 20001016 (200106)
EP 1165785 A1 20020102 (200209) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
ADT WO 2000058469 A1 WO 2000-US7579 20000323; AU 2000039087 A AU 2000-39087 20000323; EP 1165785 A1 EP 2000-918241 20000323, WO 2000-US7579 20000323
FDT AU 2000039087 A Based on WO 200058469; EP 1165785 A1 Based on WO 200058469
PRAI US 2000-174853P 20000107; US 1999-126509P 19990326
AB WO 200058469 A UPAB: 20001106
NOVELTY - A nucleic acid molecule (I) comprising one of 48 polynucleotide sequences (S1), 657-3382 nucleotides in length, all fully defined in the specification, and encoding a secreted protein, is new.

DETAILED DESCRIPTION - A nucleic acid molecule (I) comprising one of 48 polynucleotide sequences (S1), 657-3382 nucleotides in length, all fully defined in the specification, and encoding a secreted protein, is new.(I) is at least 95 % identical to a fragment of (S1) or to cDNA having one of 48 American Tissue Culture Collection (ATCC) deposit numbers, given in the specification, which is hybridizable to (S1). (I), alternatively has 95 % identity to a sequence encoding a fragment, domain or epitope of one of 48 polypeptide sequences (S2), all fully defined in the specification, to an allelic variant sequence of (S1), or to a polynucleotide encoding a species homolog of (S2). (I) may comprise 95 % identity to a polynucleotide capable of hybridizing under stringent conditions to any of the above polynucleotides, but which does not hybridize to a nucleic acid molecule comprising only A or T residues.

INDEPENDENT CLAIMS are also included for the following:

(1) a recombinant vector comprising (I);
(2) a method of making a recombinant host cell comprising (I);
(3) a recombinant host cell produced by the method of (2);
(4) a polypeptide (II) encoded by (I);
(5) an antibody specific for (II);
(6) a recombinant host cell expressing (II);
(7) producing (II), comprising culturing the cell of (6) under expression conditions and recovering the polypeptide;
(8) the polypeptide produced by the method of (7);
(9) diagnosing a pathological condition or a susceptibility to a pathological condition, comprising the presence or absence of a mutation in (I), and diagnosing the condition based on the result;
(10) diagnosing a pathological condition or a susceptibility to a pathological condition, comprising determining the presence or amount of expression of (II) in a sample, and diagnosing the condition based on the result;
(11) identifying a binding partner for (II), comprising contacting (II) with a binding partner and determining if the binding partner effects an activity of the polypeptide;
(12) identifying an activity in a biological assay, comprising expressing (I) in a cell, isolating the supernatant, detecting an activity in an assay, and identifying the protein in the supernatant having the activity; and

(13) the product of the method of (12).

ACTIVITY - **Immunosuppressive**; antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; **antibacterial**; virucide; fungicide; opthalmalogical.

No biological data is given.

MECHANISM OF ACTION - Gene therapy.

USE - (I) and (II) are used to prevent, treat or ameliorate a medical condition (claimed) in e.g. humans, mice, rabbits, goats, horses, cats, dogs, chickens or sheep. (I) and (II) are also used in diagnosing a pathological condition or susceptibility to a pathological condition (claimed). The antibodies to (II) can also be used in alleviating symptoms associated with the disorders and in diagnostic immunoassays e.g. radioimmunoassays or enzyme linked immunosorbent assays (ELISA). Disorders which are diagnosed or treated include autoimmune diseases e.g. rheumatoid arthritis, hyperproliferative disorders e.g. neoplasms of the breast or liver, cardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders e.g. cerebral **ischemia**, angiogenesis, nervous system disorders e.g. Alzheimer's disease, infections caused by bacteria, viruses and fungi and ocular disorders e.g. corneal infection. The polypeptides can also be used to aid wound healing and epithelial cell proliferation, to prevent skin aging due to sunburn, to maintain organs before transplantation, for supporting cell culture of primary tissues, to regenerate tissues and in chemotaxis. The polypeptides can also be used as a **food** additive or preservative to increase or decrease storage capabilities.

Dwg.0/0

TECH UPTX: 20001106

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Nucleic Acid: (I) may comprise sequential nucleotide deletions from the N or C terminus. Preferred Host Cell: The host cell of (3) comprises vector sequences. Preferred Conditions: The stringent hybridization conditions are overnight incubation at 42 degrees C in 50 % formamide, 5x SSC (750 mM NaCl, 75 mM trisodium citrate), 50 mM sodium phosphate pH 7.6, 5x Denhardt's solution, 10 % **dextran** sulfate and 20 micro-g/ml denatured, sheared salmon sperm DNA, followed by washing in 0.1x SSC at 65 degrees C. Preparation: (II), and antibodies specific for (II), are preferably produced by standard recombinant DNA techniques.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: (II), and antibodies specific for (II), can be produced by standard chemical synthetic techniques.

L22 ANSWER 7 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-594261 [56] WPIDS
DNC C2000-177463
TI Use of TIMP-4 for treating or preventing restenosis, inhibiting migration of smooth muscle cell, inhibiting extracellular matrix degradation of a vessel, treating or preventing vascular injury and disease.
DC **B04 D13** D16 D22
IN NI, J; ROSEN, C A; SHI, Y E; WANG, M
PA (HUMA-N) HUMAN GENOME SCI INC; (LONG-N) LONG ISLAND JEWISH MEDICAL CENT
CYC 90
PI WO 2000053210 A1 20000914 (200056)* EN 300p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000037359 A 20000928 (200067)
US 2002103122 A1 20020801 (200253)
ADT WO 2000053210 A1 WO 2000-US6279 20000313; AU 2000037359 A AU 2000-37359 20000313; US 2002103122 A1 US 2001-947715 20010907
FDT AU 2000037359 A Based on WO 200053210
PRAI US 1999-266424 19990311
AB WO 200053210 A UPAB: 20001106
NOVELTY - Use of tissue inhibitor of matrix metalloproteinase (TIMP)-4 (I) for treating or preventing restenosis, inhibiting migration of smooth muscle cell, inhibiting extracellular matrix degradation of a vessel, treating or preventing vascular injury and for treating or preventing a vascular disease in a subject, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) treating or preventing restenosis in a subject comprising introducing and expressing a DNA sequence encoding (I) into a sufficient number of cells of the subject;

(2) an isolated nucleic acid molecule (II) comprising a polynucleotide having a nucleotide sequence at least 90% identical to a sequence encoding amino acids m-n of a sequence of 224 amino acids (S2) given in the specification (where m is an integer from 2-218 and n is an integer from 6-218); and

(3) an isolated polypeptide (III) comprising an amino acid sequence which is at least 90% identical to amino acids m-n of (S2).

ACTIVITY - Cytostatic; anti-HIV; antiarthritic; antipsoriatic; **antiinflammatory**; antiseborrheic; dermatological; **antibacterial**; **immunosuppressive**; antiviral; antiparkinsonian; nootropic; vulnerary; antiatherosclerotic; vasotropic; antirheumatic; antiarteriosclerotic; antithyroid; cardiant. Details of test given but no results are given.

MECHANISM OF ACTION - Gene therapy; promoter of healing process of an injured vessel;

USE - (I) is used for treating or preventing restenosis, inhibiting migration of (vascular) smooth muscle cells, treating or preventing vascular injuries caused by angioplasty, aneurysm, atherosclerosis, arterial occlusion, lesions, grafts, pulmonary embolism or myocardial infarction, for inhibiting extracellular matrix degradation and for treating a vascular disease such as vasculitis or Marfan's syndrome (claimed). The nucleic acids encoding (I) are useful for designing nucleic acid hybridization probes that will detect nucleic acid sequences. The polynucleotides are also useful in chromosome identification and in gene mapping strategies. The polynucleotides can be used as molecular weight markers on Southern gels, as diagnostic probes for the presence of a specific mRNA in a particular cell or tissue type, as a probe to subtract-out known sequences in the process of discovering novel polynucleotides, for selecting and making oligomers for attachment to a gene chip or other support, to raise anti-DNA antibodies using DNA immunization techniques, and as an antigen to elicit an immune response. The polynucleotides encoding TIMP-4 are also useful in gene therapy. The polypeptides of (S2) are used to generate antibodies which bind specifically to the proteins containing the polypeptides and the secreted proteins encoded by the cDNA clone. The polypeptides can be used to treat, inhibit or prevent diseases, disorders or conditions associated with aberrant expression and/or activity of the normal polypeptide. The polypeptides and polynucleotides are useful for detecting cancer in mammals. TIMP-4 polypeptides can be used to assay protein levels in a biological sample using antibody-based techniques and by imaging. TIMP-4 polypeptides can be used to treat, prevent, and/or diagnose disease and to replace absent or decreased levels of the TIMP-4 polypeptide, to supplement absent or decreased levels of a different polypeptide (e.g.,

hemoglobin S for hemoglobin B, SOD, catalase DNA repair proteins), to inhibit the activity of a polypeptide (e.g., an oncogene or tumor suppressor), to activate the activity of a polypeptide (e.g., by binding to a receptor), to reduce the activity of a membrane bound receptor by competing with it for free ligand (e.g., soluble TNF receptors used in reducing **inflammation**), or to bring about a desired response (e.g., blood vessel growth inhibition, enhancement of the immune response to proliferative cells or tissues). TIMP-4 polypeptides can be used as molecular weight markers on SDS-PAGE gels or on molecular sieve gel filtration columns. The polynucleotides or polypeptides can be used to treat, prevent and/or diagnose hyperproliferative diseases, disorders, and/or conditions, including neoplasms, inhibiting the angiogenesis of proliferative cells or tissues, inhibiting the metastasis of proliferative cells or tissues, for the treatment of conditions associated with neovascularization, to prevent the progression of lesions, treat neovascular glaucoma, proliferative diabetic retinopathy and macular degeneration, hemangioma, arthritis, psoriasis, angiofibroma, atherosclerotic plaques, delayed wound healing, granulations, hemophilic joints, hypertrophic scars, nonunion fractures, Osler-Weber syndrome, pyogenic granuloma, scleroderma, trachoma and vascular adhesions, solid tumors,blood born tumors such as leukemias, tumor metastasis, Kaposi's sarcoma, benign tumors, e.g., hemangiomas, acoustic neuromas, neurofibromas, trachomas, pyogenic granulomas, rheumatoid arthritis, psoriasis, ocular angiogenic diseases, treating tumor excision sites, cancers, autoimmune diseases, disorders and/or conditions (e.g. multiple sclerosis, Sjogren's syndrome, Hashimoto's thyroiditis, Crohn's disease and systemic lupus erythematosus) and viral infections, **inflammation**, graft rejection, leukemia, modulate mammalian characteristics e.g. height, weight, hair color, eye color, skin pigmentation, modulate mammalian metabolism, to change a mammal's mental state or physical state by influencing biorhythms circadian rhythms, tendency for violence, tolerance for pain, reproductive capabilities, hormonal or endocrine levels, appetite, libido, memory, stress or other cognitive qualities, or as a **food** additive or preservative, e.g. to increase or decrease storage capabilities, fat content, lipid, protein, carbohydrates, vitamins, minerals, cofactors or other **nutritional** components.

Dwg.0/4

TECH UPTX: 20001106

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preparation: (I) is prepared by standard recombinant techniques.

Preferred Method: Treating or preventing restenosis in a subject involves introducing and expressing a DNA sequence encoding TIMP-4 into smooth muscle cells or fibroblasts through installation therapy, electroporation, DEAE **Dextran**, cationic liposome fusion, protoplast fusion, by creation of an in vivo electrical field, DNA coated microprojectile bombardment, injection with recombinant replication-defective viruses, homologous recombination or naked DNA transfer.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preparation: (I) is also prepared by standard solid phase peptide synthesis.

L22 ANSWER 8 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-490998 [43] WPIDS
DNC C2000-147546
TI Isolating mucilaginous polysaccharide comprises used for treating e.g. cancer, viral infection and depression, comprises treating polysaccharide in aqueous solution with tannins.
DC A96 **B04 D13** D21 D22
IN VITTORI, N

PA (VITO-N) VITO-MANNAN POLYSACCHARIDE LLC; (VITT-I) VITTORI N
CYC 91
PI WO 2000041541 A2 20000720 (200043)* EN 45p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000026088 A 20000801 (200054)
EP 1144456 A2 20011017 (200169) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
ADT WO 2000041541 A2 WO 2000-US759 20000111; AU 2000026088 A AU 2000-26088 20000111; EP 1144456 A2 EP 2000-904309 20000111, WO 2000-US759 20000111.
FDT AU 2000026088 A Based on WO 200041541; EP 1144456 A2 Based on WO 200041541
PRAI US 1999-115619P 19990112
AB WO 200041541 A UPAB: 20000907
NOVELTY - Isolating a mucilaginous polysaccharide comprises treating an aqueous solution comprising the polysaccharide with one or more tannins to form a complex comprising the polysaccharide and the tannin(s) and separating the complex from the aqueous solution to form a first mass.

ACTIVITY - Dermatological; anabolic; anorectic; cytostatic; antiviral; immunostimulant; **antibacterial**; **antiinflammatory**; analgesic; antifungal; antiarthritic; antidepressant; antipyretic; antiasthmatic; **antiallergic**; tranquilizer; neuroprotective; antipruritic.

MECHANISM OF ACTION - None given.

USE - The polysaccharide is useful in beverages, candies, comestibles, tonics, lotions, cosmetics, pharmaceutical compositions, suppositories, implants, shampoos, hair conditioners, wound dressings, wound or injury treatment products, anti-itch formulations, sun-burn formulations, topical formulations, oral formulations, dietary compositions, **food** supplements and injectable formulations. The aloe derived polysaccharide is useful for treating or alleviating the symptomatology of sun-burn irritation, poison ivy irritation, poison oak irritation, gastric ulcers, wound healing, cancer, viral infection, immuno-suppression, immune deficiency, microbial infection, **inflammation**, AIDS, neuralgia, ulcerative colitis, tuberculosis, cryptosporidiosis, fungal infection, leukemia, chronic rheumatoid arthritis, acute rheumatoid arthritis, depression, anxiety, alopecia, rheumatic fever, influenza, cystic fibrosis, malnutrition, asthma, lupus erythematosus, **allergy**, hypercholesterolemia, poisonous animal or insect bites, premalignant skin lesions, tumors, Kaposi's sarcoma, hepatic tumor, malnutrition, malabsorption syndrome, multiple sclerosis, chronic fatigue syndrome, measles, **inflammatory** bowel disease, cutaneous ulcers, pneumocystis carinii infection, herpes, iridovirus infection, poxvirus infection, hepadnavirus infection, orthomyxovirus infection and paramyxovirus infection.

ADVANTAGE - High quality mucilaginous polysaccharides are obtained in high yields. Large volumes of organic solvents are not required.

Dwg.0/2

TECH UPTX: 20000907
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred method: The method also comprises treating the first mass with one or more solutions, optionally with mixing, to remove the tannin from the mass to form a second mass and separating the second mass from the solution(s) and the tannin. The method also comprises drying the second mass to form a dry third mass comprising polysaccharides and/or adding an aqueous solution to the second mass to form a solution, gel or suspension comprising polysaccharides.

A preservative is added to an aqueous solution or gel comprising a mucilaginous polysaccharide, the particle size of solids in at least one of the first and second mass is reduced and the color of at least one of the first and second mass is reduced.
The method comprises:
(1) adding a first aqueous solution containing hydrolyzable or condensed tannins (0.5-10% weight/volume) to a second aqueous solution containing polysaccharides or protein-bound polysaccharides while mixing to form a first insoluble complex comprising tannins and polysaccharides or biopolymers;
(2) separating the complex from aqueous solutions to form a first water insoluble tannin-polysaccharide complex and
(3) breaking the tannin-biopolymer complex by using solvents or water solutions.
The solvents comprise methanol, ethanol, butanol, acetone, 1,3-dioxolane or mixtures of them with water with or without PEG or Tween 80. The water solutions contain PVP, PPVP, casein, albumin, gelatin or other similar protein sources.
The tannin is produced as an acetone:water extract made by gel permeation chromatography on Sephadex L-20 media eluted from the ratio of acetone:water in the extract in the range of 10:90 to 80:20 v/v or by classical chromatography with silica-based media.
The method also comprises one or more of the following steps:
(1) removing all tannins from the insoluble tannin-polysaccharide mass by use of solvents to form a second mass of aloe biopolymers free of bound tannins;
(2) reducing the ionic strength of the second aqueous solution by the use of resins prior to the addition of the tannic acid;
(3) dissolving the isolated tannin free polysaccharides in water to form a viscous solution containing the polysaccharide in a concentration of 0.2-0.6% weight/volume;
(4) adding a preservative such as sodium benzoate or potassium sorbate to the first or second aqueous solutions;
(5) reducing the particle size of one or both of the tannin-polysaccharide complexes by mechanical means;
(6) adding saline water, Tween 80, sodium sulfate, gallic acid or n-propyl gallate to the second solution prior to the addition of the first solution containing tannins;
(7) treating the first mass one or more times, optionally with mixing, with one or more solutions containing at least one of a surfactant and a glycol polymer to remove a major portion of the tannin from the mass to form a second mass having properties similar to the initial native polysaccharide;
(8) using an acetone water extract of ellagitannis made by treating commercially available tannic acid or other sources of tannins with gel permeation chromatography or classical chromatography techniques using other adsorbent type of packing materials to complex the mucilaginous polysaccharides; and
(9) using ellagitannins extracted from the original tannic acid powder or other sources of tannic acid by using chromatography or gel permeation chromatography using Sephadex L-20.
The ellagitannins extract contains at least one component selected from Nobotanins, Corlagins, Gemins, Augosin, Rugosin, Isorugosin, Corousilins, Coriariums, Ocnotheins, Agrimonin, Geraniin, Granatin and Cornusiins.
Preferred components: The mucilaginous polysaccharide is isolated from a plant, cell culture or fungus and possesses one or more physical properties which are about the same as those of the polysaccharide as it is found in the native plant, cell culture or fungus. The polysaccharide has at least one of weight average molecular weight, number average molecular weight, dispersivity, acetyl group, saccharide ratio content,

saccharide content, saccharide end group content and linkage group analysis similar to that of the native polysaccharide when tested under similar conditions.
The polysaccharide is obtained from a source comprising aloe vera, plantago ovata, plantago major, mushroom mycelia, mushroom fruiting bodies and oat and comprises arabinose, rhamnose, xylose, mannose and glucose in amounts similar to those found in a native aloe plant. The polysaccharide comprises arabinose (0.8-1.2 wt.%), rhamnose (0.08-0.35 wt.%), xylose (0.35-0.045 wt.%), mannose (80-85 wt.%) and glucose (14-18 wt.%) based on dry weight of the polysaccharide. The polysaccharide has a saccharide and linkage group content of terminal arabinose (furanose) of 0.7%, terminal mannose 0.9%, terminal galactose 0.5%, 4-xylose 0.7%, 4-mannose 69.6%, 4-glucose 9.7%, 3,4-mannose 4.0%, 2,4-mannose 2.5%, 2,3,6-mannose 2.3%, 4,6-mannose 5.4%, 4,6-glucose 0.5%, 3,6-galactose 1.4%, 3,4,6-mannose 0.8%, 2,4,6-mannose 0.8% and 2,3,4,6-mannose 0.7%.
The polysaccharide has a saccharide content of arabinose 0.9%, rhamnose 0.1%, xylose 0.4%, mannose 83.1% and glucose 15.5%. The polysaccharide has an acetyl group content of 19.7-21.96%. The polysaccharide has an acetyl group/total saccharide ratio of 0.87-0.965 and an acetyl group/mannose ratio of 0.971-1.201.
The polysaccharide is obtained from a mushroom selected from Coriolus versicolor, Shiitake (Lentinula edodes), Maitake (Grifola frondosa) and Reishi/Ling Chi mushrooms (Ganoderma lucidum). The polysaccharide comprises 1-3,1-4 beta glucans, acetylated polymannans, mucilages where the main chain comprises beta 1-4 acetylated D-xylopyranose residues, **galacto-mannans** and protein bound water soluble 1-3 beta-D-glucans.
The tannins comprise a hydrolyzable tannin or condensed tannin, preferably gallotannin, Chinese gallotannin, Turkish gallotannin, tara gallotannin, ellagitannin, myrobalan ellagitannin, divi ellagitannin, chestnut ellagitannin, nobotanin, corilagin, gemin, augosin, rugosin, isorugosin, corousilin, coriarium, ocnothein, agrimonin, geraniin, granatin or cornusiin.
The one or more solutions comprises one or more of an organic solvent, mixture of organic solvents, surfactant, glycol polymer, soluble or insoluble PVP, PPVP, gelatin, casein, protein, animal hide powders, powdered nylon, polystyrene, polyacrylate, phenol specific resin, cation exchange resin, anion exchange resin, glycol polymer, detergent and water.

L22 ANSWER 9 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-329163 [28] WPIDS
DNC C2000-099801
TI New modified polypeptides having an attached polymer for reducing immune responses, useful in e.g. detergents, cleaning products, skin care products, **food** or **feed** products, textile products or pharmaceuticals.
DC A96 **B04 D13** D16 D21 D25 F06
IN ANDERSEN, K V; ERNST, S; OLSEN, A A; ROGGEN, E L; VON DER OSTEN, C; OSTEN, C V D
PA (NOVO) NOVO-NORDISK AS; (NOVO) NOVOZYMES AS
CYC 91
PI WO 2000022103 A1 20000420 (200028)* EN 107p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 9960788 A 20000501 (200036)
EP 1121424 A1 20010808 (200146) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
CN 1323345 A 20011121 (200218)
US 6461849 B1 20021008 (200269)
JP 2002527059 W 20020827 (200271) 188p
ADT WO 2000022103 A1 WO 1999-DK542 19991012; AU 9960788 A AU 1999-60788 19991012; EP 1121424 A1 EP 1999-947261 19991012, WO 1999-DK542 19991012; CN 1323345 A CN 1999-812117 19991012; US 6461849 B1 Provisional US 1998-105624P 19981026, Provisional US 1999-157426P 19991004, US 1999-417359 19991013; JP 2002527059 W WO 1999-DK542 19991012, JP 2000-575995 19991012
FDT AU 9960788 A Based on WO 200022103; EP 1121424 A1 Based on WO 200022103; JP 2002527059 W Based on WO 200022103
PRAI DK 1999-1418 19991004; DK 1998-1301 19981013
AB WO 200022103 A UPAB: 20000613
NOVELTY - A polypeptide with reduced immune response, having one or more modified amino acids, where the C alpha -atoms of the amino acids are located less than15 Angstrom from a ligand bound to the polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method for preparing polypeptides with reduced immune response comprising:

(a) identifying amino acid residues located on the surface of the 3-dimensional structure of a parent polypeptide;

(b) selecting target amino acid residues on the surface of the 3-dimensional structure of the parent polypeptide to be modified;

(c) substituting one or more amino acid residues selected in (b) with other amino acid residues; and/or

(d) coupling polymeric molecules to the amino acid residues of (b) and/or (c); and

(2) a composition comprising the novel modified polypeptide, and ingredients used in industrial products, or pharmaceuticals.

USE - The modified polypeptides can be used for reducing the **allergenicity** of industrial products, e.g. a detergent such as a laundry, dish wash or hard surface cleaning product, including bio-film products or a **food** or **feed** product or a textile product (claimed). They can also be used in personal care products, particularly skin care products (claimed). The modified polypeptides can also be used for reducing the immunogenicity of pharmaceuticals (claimed).

ADVANTAGE - The modified polypeptides have reduced immunogenicity or **allergenicity** while maintaining a high percentage of activity.

Dwg.0/2

TECH UPTX: 20000613
TECHNOLOGY FOCUS - BIOLOGY - Preferred peptide: The polypeptide has reduced **allergenicity**, and the Cbeta-atom of the amino acid is closer to the ligand than the Calpha -atom. The Calpha-atom is located less than 10Angstrom from the ligand and the amino acids have an accessibility of at least 15%. The ligand is a metal or metal ion. The polypeptide is modified by amino acid substitutions, and is selected from a diverse library of variants. The substituted amino acids are Lys, Asp, Glu, or Cys, and the substitutions are conservative, e.g. Arg to Lys, Asp or Asn to Gln, Glu to Asn or Gln, or Thr or Ser to Cys. One or more polymeric molecules may be coupled to the polypeptide to form a conjugate, where the polypeptide moiety of the conjugate has a molecular weight of 1-1000, preferably 12-60kDa, and the polymeric molecules have a molecular weight of 0.1-100, preferably 1-2kDa. The polypeptides may be an enzyme, e.g. oxidoreductases (e.g. laccases or superoxide dismutase (SOD)), hydrolases (e.g. carbohydrases, amylases, proteases, especially subtilisins), transferases (e.g. transglutaminases (TGases)), isomerases

(e.g. protein disulfide isomerases (PDI)), lyases (e.g. pectate lyases), PD498, Savinase (RTM), BPN', amylase, proteinase K, proteinase R, subtilisin DY, lion Y, Rennilase (RTM), JA16, or Alcalase (RTM). The residues of these polypeptides which may be substituted are defined in the specification. The identification of amino acid residues may be carried out by computer analyzing the 3-dimensional structure of the parent polypeptide in question. Protein co-ordinate data is given in the patent specification.

TECHNOLOGY FOCUS - POLYMERS - The polypeptide may be modified by coupling one or more polymeric molecules, e.g. polyethylene glycols (PEGs), poly-vinyl alcohol (PVA), poly-carboxyl acids, poly-(vinylpyrrolidone) and poly-D,L-amino acids, or natural occurring polymeric molecules including **dextrans** e.g. carboxymethyl-**dextrans**, and celluloses such as methylcellulose, carboxymethylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, and hydrolysates of chitosan, starches, such as hydroxyethyl-starches, hydroxypropyl-starches, glycogen, agarose, guar gum, inulin, pullulans, xanthan gums, carrageenan, pectin or alginic acid.

L22 ANSWER 10 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-302661 [26] WPIDS
DNC C2000-091616
TI Killing or inactivating microbes in liquids without inactivating proteins and other labile constituents, used to disinfect blood, blood fractions, enzymes and vaccines as well as liquid **food** products.
DC A96 **B04** D22
IN SHANBROM, E
PA (SHAN-N) SHANBROM TECHNOLOGIES LLC
CYC 24
PI US 6045787 A 20000404 (200026)* 10p
WO 2001030402 A1 20010503 (200126)# EN
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP MX
AU 2000012157 A 20010508 (200149)#
EP 1225924 A1 20020731 (200257)# EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT US 6045787 A US 1998-146383 19980901; WO 2001030402 A1 WO 1999-US24606 19991022; AU 2000012157 A WO 1999-US24606 19991022, AU 2000-12157 19991022; EP 1225924 A1 EP 1999-974131 19991022, WO 1999-US24606 19991022
FDT AU 2000012157 A Based on WO 200130402; EP 1225924 A1 Based on WO 200130402
PRAI US 1998-146383 19980901; WO 1999-US24606 19991022; AU 2000-12157 19991022; EP 1999-974131 19991022
AB US 6045787 A UPAB: 20000531
NOVELTY - A method for killing or inactivating microbes in liquids, without inactivating proteins and other labile constituents, comprising contacting the liquid with a mixture of elemental iodine containing insoluble particles, and insoluble iodine-binding particles, which act as a sink for elemental iodine, and removing the mixture of particles from the liquid, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for killing or inactivating microbes without inactivating proteins or other labile constituents in the liquid, comprising flowing the liquid through a mixture of elemental iodine-containing insoluble particles and insoluble iodine-binding particles.

ACTIVITY - **Antimicrobial**; disinfectant. Aliquots of thawed human plasma (500 ml) were treated with iodination columns (750 ml) with or without porcine parvo virus (PPV). The columns were run at 50, 100 or 200 ml/minute and the effluent deposited in a solution of sodium ascorbate (10 mg/ml) to ensure rapid neutralization of the iodine. All the iodine

color disappeared upon contact with the ascorbate solution. Following neutralization, the solutions were run through the capture column to remove iodide. In all of the iodine treatments, regardless of flow rate, there was complete kill of the added PPV.

MECHANISM OF ACTION - None given.

USE - The methods are used to disinfect protein-containing solutions such as blood, blood fractions, enzymes and vaccines. They may be used in chromatographic columns to effectively disinfect protein-containing solutions.

ADVANTAGE - The methods do not inactivate proteins and other labile constituents, such as blood clotting factors as well as red-blood cells and platelets and labile flavors. The methods provide a non-heat method for disinfecting liquid **food** products without damaging flavor as in fruit juices, milk and other liquid **foods**.

Dwg.0/0

TECH UPTX: 20000531

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred method: The elemental iodine-containing material is iodinated agarose, iodinated crosslinked **dextrans**, iodinated diethylaminoethanol (DEAE) cellulose, iodinated polyvinylacetal, iodinated polyvinylpyrrolidone or iodinated styrene-divinyl benzene anion exchange resin. The iodine-binding material is agarose, crosslinked **dextrans**, DEAE cellulose, polyvinylacetal, polyvinylpyrrolidone or styrene-divinyl benzene anion exchange resin. The proportion of the elemental iodine-containing material to iodine-binding material is 1:99-90:10%, by weight.

L22 ANSWER 11 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 2000-185216 [17] WPIDS
DNC C2000-058228
TI Antioxidant composition useful for treating disorders induced by oxidative stress and oxidizing agents and as **food** preservative contains (bio)polymer of heparin-binding growth factor protector and potentiator family.
DC A96 **B04** C03 D21
IN BARRITAULT, D; CARUELLE, J P
PA (BARR-I) BARRITAULT D; (CARU-I) CARUELLE J P
CYC 1
PI FR 2781374 A1 20000128 (200017)* 26p
ADT FR 2781374 A1 FR 1998-9307 19980721
PRAI FR 1998-9307 19980721
AB FR 2781374 A UPAB: 20000405

NOVELTY - Antioxidant composition comprises at least one substance (I) selected from polymers or biopolymers of the HBGFPP (Heparin-Binding Growth Factor Protector and Potentiator) family (see FR2718023 and FR2718025).

ACTIVITY - Antioxidant; vasotropic; neuroprotective; cytoprotective; radioprotective; antihypertensive; **antibacterial**; hemostatic; antidiabetic; **immunosuppressive**; **antiinflammatory**; ophthalmological. No details of tests for the composition are given.

MECHANISM OF ACTION - Superoxide dismutase (SOD) potentiator and stabilizer.

USE - The pharmaceutical composition comprising (I) and optionally superoxide dismutase (SOD) is useful for treating and/or preventing lesions and disorders induced by oxidative stress and oxidizing agents; deleterious effects associated with tissue stress; **ischemia**; the effects of ionizing radiation; invasion by a pathogen, e.g. a virus, microorganism, parasite or prion; the consequences of hemorrhage; preserving tissues, organs and prostheses; treating and/or preventing aggressions, disorders or degeneration of nerve tissues; aging; lesions of the bone-marrow or retina; respiratory insufficiency associated with

fatigue of the diaphragm, e.g. muscular dystrophy; diabetic complications, e.g. retinopathy; leprosy; endotoxin shock; lesions caused by radiotherapy or accidental irradiation; effects induced by ultraviolet radiation; hypertension or in hemodialysis (all claimed). The composition (comprising SOD as antioxidant) may also be useful as preservative in **foods** (claimed) or in cosmetics.

ADVANTAGE - Carboxymethyl **dextran** benzylamide sulfonate at a concentration of 50 mu g/ml increased the activity of SOD by 50% at pH 7.

Dwg.0/5

TECH UPTX: 20000405

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The composition can also contain superoxide dismutase (SOD).

L22 ANSWER 12 OF 21 WPIDS (C) 2002 THOMSON DERWENT

AN 1999-494206 [41] WPIDS

DNC C1999-144822

TI Pharmaceutical compositions for oral, transmucosal, parenteral and topical delivery of active agents and to improve biopharmaceutical properties of actives.

DC A96 **B04** B05 B07

IN CARLI, F; COCEANI, N; COLOMBO, I; DEL CURTO, M D; ESPOSITO, P

PA (VECT-N) VECTORPHARMA SPA; (EURA-N) EURAND INT SPA; (VECT-N) VECTORPHARMA INT SPA

CYC 85

PI WO 9939700 A1 19990812 (199941)* EN 73p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

AU 9927238 A 19990823 (200005)

EP 1051160 A1 20001115 (200059) EN

R: AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE

BR 9907683 A 20001114 (200064)

KR 2001040726 A 20010515 (200167)

IT 1298575 B 20000112 (200175)

JP 2002502813 W 20020129 (200211) 70p

AU 747129 B 20020509 (200238)

ADT WO 9939700 A1 WO 1999-EP782 19990205; AU 9927238 A AU 1999-27238 19990205; EP 1051160 A1 EP 1999-907510 19990205, WO 1999-EP782 19990205; BR 9907683 A BR 1999-7683 19990205, WO 1999-EP782 19990205; KR 2001040726 A KR 2000-708610 20000805; IT 1298575 B IT 1998-MI234 19980206; JP 2002502813 W WO 1999-EP782 19990205, JP 2000-530200 19990205; AU 747129 B AU 1999-27238 19990205

FDT AU 9927238 A Based on WO 9939700; EP 1051160 A1 Based on WO 9939700; BR 9907683 A Based on WO 9939700; JP 2002502813 W Based on WO 9939700; AU 747129 B Previous Publ. AU 9927238, Based on WO 9939700

PRAI IT 1998-MI234 19980206

AB WO 9939700 A UPAB: 19991011

NOVELTY - Pharmaceutical compositions in form of solid nanoparticles comprise composite material comprising:

(a) at least one lipoid substance;

(b) at least one amphiphilic substance; and

(c) hydrosoluble, liposoluble or poorly soluble pharmaceutical active.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the preparation of the compositions.

USE - For oral and transmucosal delivery of active agents including

polypeptides and proteins not usually absorbable by this route, for oral and/or parenteral delivery of lipophilic highly insoluble and poorly absorbable molecules including cyclosporin, leuprolide, taxol and its derivatives, etoposide, acyclovir or ganciclovir. Used to improve biopharmaceutical properties of active principles including for controlled or prolonged release and to increase plasmatic half-lives. Used to topically deliver molecules active at the mucosal or dermal level e.g. antivirals, anti-micotics and anti-psoriatics. Used to encapsulate active ingredients with unpleasant flavor, administrable in immediate-release formulations. Used to deliver non-steroidal anti-**inflammatory** drugs (NSAIDs), steroidal anti-**inflammatory** drugs (SAIDs), estrogenic or progestational hormones, cardiovascular, antivirals, anti-micotics, antineoplastics, hypolipidemics, peptides, proteins, ergot alkaloids and derivatives (dihydroergotamine, didehydroergotoxine, bromocriptine), analgesics and NSAIDs and their salts (diclofenac sodium, diclofenac hydroxyethil pyrrolidone, diclofenac diethylamine, ibuprofen, flurbiprofen, ketoprofen, indomethacin, mefenamic acid, naproxen, nimesulide, piroxicam), antiarrhythmics (amiodarone, diisopyramide, propranolol, verapamil), **antibacterials** (amoxicillin, flucloxacillin, gentamicin, rifampicin, erythromycin, cephalosporins), antifungals, and antipsoriatics (amphotericin, butoconazole nitrate, ketoconazole, econazole, etretinate, fluconazole, flucytosine, griseofulvin, itraconazole, miconazole, nystatin, sulconazole, tioconazole), antivirals (acyclovir, ganciclovir, AZT, protease inhibitors), antihypertensives (amlodipine, clonidine, diltiazem, felodipine, guanabenz acetate, isradipine, minoxidil, nicardipine hydrochloride, nimodipine, nifedipine, prazosin hydrochloride, papaverine), antidepressants (carbamazepine), antihistaminics (diphenhydramine, chlorpheniramine, pyrilamine, chlorcyclizine, promethazine, acrivastine, cinnarizine, loratadine, terfenadine), antineoplastics and **immunosuppressants** (cyclosporin, dacarbazine, etretinate, etoposide, lomustine, melphalan, mitomycin, mitoxantrone, paclitaxel, procarbazine, tamoxifen, taxol and derivatives, taxotere), anxiolytics, sedatives and hypnotics (alprazolam, bromazepam, diazepam, lorazepam, oxazepam, temazepam, sulpiride, triazolam), beta blockers (alprenolol, atenolol, oxprenolol, pindolol, propranolol), beta agonists (salbutamol, salmeterol), cardiac and cardiovascular inotropics (amrinone, digitoxin, digoxin, lanatoside C, medigoxin, ubidecarenone), corticosteroids (beclomethasone, betamethasone, budesonide, cortisone acetate, desoximethasone, dexamethasone, fludrocortisone acetate, flunisolide, hydrocortisone, methylprednisolone, methylprednisone, triamcinolone), gastrointestinals and anti H2 histaminics (cimetidine, cisapride, domperidone, famotidine, loperamide, mesalazine, omeprazole, ondansetron hydrochloride, ranitidine), hypolipidemics (claimed) (bezafibrate, clofibrate, gemfibrozil, probucol, lovastatin), anti-anginals (amyl nitrate, glyceryl trinitrate, isosorbide dinitrate and mononitrate and pentaerythritol tetranitrate), central acting drugs (nicotine), vitaminic and **nutritional** agents (vitamins A, B2, D and derivatives, E and derivatives, and K), opioid analgesics (codeine, dextropropoxyphene, dihydrocodeine, morphine, pentazocine, methadone), sexual hormones (danazol, ethinyl estradiol, medroxyprogesterone acetate, methyltestosterone, testosterone, norethisterone, norgestrel, estradiol, estriol, progesterone, stilbestrol, diethylstilbestrol), peptidic, proteic and polysaccharidic molecules (leuprolide and LH-RH analogs, calcitonin, glutathione, somatostatin, GH, desmopressin DDAVP, interferon, molgramostin, EGF, NGF, insulin, glucagon, toxins or toxoides (tetanus toxin), antigenic factors of proteic or polysaccharidic kind, heparin, low-molecular weight heparin or heparinoids) and molecules with specific topical activity e.g. sun protectors (UV absorbers), skin nutrients, ceramides, and glycolic acid.

ADVANTAGE - Surface and mass properties of composite materials allow improved incorporation of active ingredients and increased bioavailability of poorly absorbable active ingredients. Have properties not achieved by usual mixing of lipidic and amphiphilic substances. Assist oral administration absorption and half-life time in circulatory system, allow incorporation of thermolabile drugs, are suitable for vehiculation of both liposoluble and hydrosoluble drugs, and are able to homogeneously incorporate hydrophilic drugs (e.g. peptides) inside an essentially lipophilic matrix. It is possible to have vector systems (comprising nanoparticles) originated exclusively by physical changes of component substances, thus not requiring long toxicological experimental tests.

Calcitonin marked by a fluorophor (7-nitrobenz-2-oxa-1,3-diazol) was incorporated into test nanoparticles (2: 99.0% stearic acid and 1.0% DMPG; 5: 91.5% stearic acid and 9.5% DMPG) and comparative nanoparticles (B: stearic acid 100%; C: stearic acid 90% and DMPG 10%) washed by ultrafiltration. The percentage of peptide superficially adsorbed with respect to the incorporated total was determined by measuring the fluorescence before and after treatment of the suspensions with proteolytic enzyme trypsin, which was able to dissolve and degrade only the peptide fraction adsorbed to the surface of the particles. Percentages were calculated by measuring the emission values in fluorescence with respect to a standard curve and with respect to 100% of fluorescence emitted before ultrafiltration. The incorporation efficiency (%) and adsorbed peptide (%) were as follows: (2) 10.2 and 0.11; (5) 9.19 and 0.49; (B) 1.82 and 0.93 and (C) 1.75 and 0.95. The results showed that the test composite nanoparticles increased the incorporation efficiency of the peptide, decreasing its superficially located fraction and maintaining the majority inside the composite matrix.

Dwg.0/11

TECH UPTX: 19991105

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred compositions: (a) is present in an amount of 0.5-99.5%, (b) is present in an amount of 0.5-99.5% and (c) is present in an amount of 0.001-99 weight % with respect to the sum of (a) and (b). The nanoparticles have a diameter less than 1000 nm, preferably 50-500 nm.

The compositions comprise: (1) mixture of two or more materials of which at least one lipidic and one amphiphilic form a composition material; (2) one or more surfactants and co-surfactants;

(3) dispersing/suspending aqueous or non-aqueous phase; and (4) one or more pharmaceutical actives, and are preferably in the form of microemulsions with existence interval at temperatures lower than the melting temperature of the single components. The nanoparticles are dispersed in an aqueous suspension at 0.1-50 weight/volume %. The nanoparticles are formulated as an aqueous suspension inside capsules or globula for pharmaceutical use, in syrup form, as solid powder inside capsules for pharmaceutical use or as solid particles inside tablets, pellets or granules for pharmaceutical use.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred components: (a) is a natural fat, partially or totally hydrogenated vegetable oil, semi-synthetic or synthetic mono-, di- or triglyceride containing saturated and/or unsaturated 10-22C fatty acids of and their poly-hydroxylated derivatives, liquid waxes chosen form isopropyl myristate, isopropyl caprinate, -caprylate, -laurate, -palmitate, -stearate, esters of fatty acids, chosen from ethyloleate, oleyloleate, solid waxes chosen from carnauba wax and beeswax, aliphatic alcohols chosen from cetyl alcohol, stearyl alcohol, lauryl alcohol, cetylstearyl alcohol and their poly-hydroxylated derivatives, 10-22C aliphatic carboxylic acids chosen from decanoic, lauric, palmitic, stearic, docosanoic, oleic, linoleic acid and their polyhydroxyethylated derivatives. (b) is phosphatidyl glycerol, phosphatidyl choline,

phosphatidic acid, glyceril monostearate, glyceril monooleate, glyceril palmitostearate, triglycerides, poly-hydroxylated triglycerides, esters of fatty acids and medium chain (6-12C) fatty acids, polyethylene glycol, poly(propyleneoxide) poly(ethyleneoxide) copolymers, poloxamer, polyvinyl alcohol, polyacrylates, poly-(methylvinyl ether)-maleic anhydride copolymers, chitosan, hyaluronic acid, cellulose, starch, xanthan, scleroglucan, gellan, guar gum, locust bean gum, alginate, **dextran**, poly-alpha-caprolactone, poly-hydroxybutyrate, polylactic acid, polyglycolic acid and copolymers. (3) comprises water, as it is or buffered at different pH and ionic strength, aqueous solutions of hydrophilic, hydrosoluble or hydrodispersible polymers chosen from polyethylene glycol, polyvinylpyrrolidone, poly(meth)acrylic acids, copolymers of polyoxyethylene, polyoxypropylene, **dextran**, xanthan, scleroglucan, gum arabic, guar gum, chitosan, cellulose and starch derivatives, sorbitol, mannitol, xylitol, short-chain mono- or poly-hydroxylic aliphatic alcohols, liquid polyethylene glycols, polyglycolic glycerides, propylene glycol, tetraglycol and ethoxydiglycol.
Preferred surfactants: Surfactants are sorbitan esters of fatty acids, polyoxyethylene sorbitan esters of fatty acids, copolymers of polypropyleneoxide-polyethyleneoxide, esters of polyethylene glycol-glycerol, esters of polyethylene glycol and acids or long-chain aliphatic alcohols, polyglyceride esters, esters of saccharides and fatty acids, sodium lauryl sulfate, sodium stearate, sodium oleate, sodium glycocholate, taurodeoxycholate, taurocholate, ursodeoxycholate, lecithins as they are or partially hydrogenated or hydrogenated, phospholipids and their semi-synthetic or synthetic derivatives, and sorbitan esters of fatty acids. Co-surfactants are ethanol, 2-propanol, n-butanol, isopropanol, butyric acid valeric acid, capronic acid, benzyl alcohol, decanoic acid, lauric acid, caprynyl alcohol, lauryl alcohol, esters or ethers of acids or medium-long-chain aliphatic alcohols with mono- or poly-hydroxylated alcohols.
Preferred actives: Hydrosoluble actives are calcitonin, somatostatin, somatotrophin (GH), LH-RH analogs, desmopressin (DDAVP), interferon, molgramostin, epidermic growth factor (EGF), nervous growth factor (NGF), insulin, glucagon, toxins or toxoides, antigenic factors of proteic or polysaccharidic kind, heparin, low-molecular weight heparin or heparinoids. Liposoluble actives are cyclosporin, leuprolide, taxol and its derivatives or etoposide. Poorly soluble actives are acyclovir or ganciclovir.

L22 ANSWER 13 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1999-277204 [23] WPIDS
DNC C1999-081397
TI Using reptilian hemoglobin as **antimicrobial**.
DC **B04** C04 C06 **D13** D16 D22
IN BINAH, O; HOFFMAN, B F
PA (THER-N) THERAGEM INC
CYC 82
PI WO 9917785 A1 19990415 (199923)* EN 35p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
AU 9890172 A 19990427 (199936)
US 6340667 B1 20020122 (200208)
BR 9813355 A 20020205 (200213)
ADT WO 9917785 A1 WO 1998-US16659 19980810; AU 9890172 A AU 1998-90172 19980810; US 6340667 B1 Provisional US 1997-61341P 19971008, Cont of WO

1998-US16659 19980810, US 1999-353719 19990714; BR 9813355 A BR 1998-13355 19980810, WO 1998-US16659 19980810

FDT AU 9890172 A Based on WO 9917785; BR 9813355 A Based on WO 9917785

PRAI US 1997-61341P 19971008; US 1999-353719 19990714

AB WO 9917785 A UPAB: 19990616

NOVELTY - Use of a reptilian hemoglobin protein (I), i.e. intact hemoglobin, heme-free alpha or beta -chains, their fragments or polypeptide fragments, or mixtures of them, for controlling bacteria and fungi.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a pharmaceutical dosage form containing (I) plus a carrier.

ACTIVITY - **Antibacterial**; antifungal. The purified alpha -chains of hemoglobin from Alligator mississipiensis were tested in a radial diffusion assay and had minimum inhibitor concentrations (in mu g/ml) of 20-30, 10-20 and 25-100 against Candida albicans, a clinical isolate; Escherichia coli MC4100 and Pseudomonas aeruginosa PA01, respectively.

MECHANISM OF ACTION - (I) may form pores inside microbial membranes.

USE - (I) is used to treat bacterial and fungal infections in humans and other animals and to treat materials subject to contamination by bacteria and fungi, particularly as preservatives for **foods**, to protect against enteric pathogens, and as disinfectants e.g. in baby wipes, bandages, make-up, contact lens cleaners etc. (I) are especially used to control Escherichia coli, Pseudomonas aeruginosa and Candida albicans.

ADVANTAGE - (I) have broad-spectrum **antimicrobial** activity and may show a synergistic effect when combined with standard antibiotics. Dwg.0/0

TECH UPTX: 19990616

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred proteins: These are derived from an alligator, specifically Alligator mississipiensis or from Thamnophis sirtalis (the garter snake).

TECHNOLOGY FOCUS - **FOOD** - When used as preservative, (I) is incorporated at 1.5-50 mg/kg, or when applied topically at 0.1-1 mg/square cm.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - When used as disinfectant, (I) is incorporated at 1.5-50 mg/kg.

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Transgenic expression of (I) can be used for preservation of **foods**.

TECHNOLOGY FOCUS - BIOLOGY - Preparation: Venous blood from A. mississipiensis was treated with **dextran**, centrifuged, and the red cell pellet lysed, centrifuged and the upper 2/3 of the solution passed through a mixed bed of ion exchangers, then through a 0.2 micron filter. The product was crude hemoglobin, diluted 1:1 with pH 7.8 Tris-hydrochloride. This was resolved into its alpha and beta-chains by chromatography on a reverse-phase C4 material, eluting with an increasing gradient of acetonitrile in 0.1% aqueous trifluoroacetic acid. Heme eluted at 7.15 minutes; the alpha and beta chains as broad bands centered on 54 and 42 minutes, respectively. Hemoglobin from T. sirtalis is available commercially.

L22 ANSWER 14 OF 21 WPIDS (C) 2002 THOMSON DERWENT

AN 1998-011910 [02] WPIDS

DNC C1998-004306

TI Antipruritic composition comprises extract of Impatiens balsamina L. petals - useful for removing itchy sensation caused by pollinosis,

food allergy or atopic dermatitis.

DC B02 **B04** B05
PA (YKOG) YAMAMOTO KOGYO KK
CYC 1
PI JP 09255583 A 19970930 (199802)* 9p
ADT JP 09255583 A JP 1996-96258 19960325
PRAI JP 1996-96258 19960325
AB JP 09255583 A UPAB: 19980112
An antipruritic composition comprises extract of petals of Impatiens balsamina L.

In an example white petals of dried Impatiens balsamina L. were soaked in 35 % aqueous ethanol solution for 24 hours to obtain an extract solution of the petals. The solution was condensed at vacuum grade reduced pressure to obtain 8.47 g of extract solution.

BIOLOGICAL DATA - The extract solution was injected (i.v.) to ddy mice at 0.1, 1, 10 and 100 mg/kg body weight respectively. After dosing the extract solution, **dextran** 40 was administered to the mice at 12.5 mg/kg body weight to induce an itchy sensation in the ddy mice. The number of scratching actions of the mice were counted for 30 minutes after dosing **dextran** 40. The average number of scratching actions of 5-10 mice/group reduced with increased concentration of Impatiens balsamina L. petal extract solution.

USE - The antipruritic drug is used for removing the itchy sensation caused by pollinosis, **food allergies** or atopic dermatitis.

ADVANTAGE - The drug has improved antipruritic effect without unwanted side effects.

L22 ANSWER 15 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1996-436900 [44] WPIDS
DNC C1996-137061
TI Non-**allergic** nutrient compsn. - contg. enzymatically-treated membrane from milk fat.
DC **B04 D13** D16
PA (SNOW) SNOW BRAND MILK PROD CO LTD
CYC 1
PI JP 08214836 A 19960827 (199644)* 6p
ADT JP 08214836 A JP 1995-50413 19950215
PRAI JP 1995-50413 19950215
AB JP 08214836 A UPAB: 19961104
Compsn. comprises enzymatically-treated membrane component obtd. from milk fat cell as an active ingredient. The compsn. pref. contains a peptide of mol. wt. not higher than 5000 and/or a free amino acid. The compsn. contains pref. at least 0.2 wt.% of an enzymatically-treated milk fat cell membrane in the solid portion. Proteins contained in the enzymatically-treated milk fat cell membrane are pref. of mol.wt. not higher than 5000. The compsns. can be prepd. by mixing a protein and milk fat cell membrane, followed by treatment with an enzyme, or vice versa. The enzymatic treatment can be performed with protease and/or peptidase at a temp. of 40-50 deg.C for 5-24 hours.

USE/ADVANTAGE - The compsn. is a dietary nutrient for a patient **allergy** to **food** proteins. It has good emulsifying ability when applied as an emulsifier, has good flavour and does not act as an **allergen**.

In an example, a homogeneous mixt. of 10 kg of liquified butter and 2 kg of warm water at 75 deg.C was centrifuged at 5000 G to separate butter oil from butter serum; the latter was freeze-dried to give 140 g of a milk fat cell membrane. 100 g of the membrane and 7 kg of casein were dissolved in 93 kg of water and the mixt. was, after the pH being adjusted to 3.9, treated with 560 thousand units of an industrial protease at 46 deg. C for

6 hours. The pH was then raised to 6.1 and the mixt. was treated with 30 million units of an industrial peptidase and 46 deg.C for 16 hours. To 100 kg of the soln. were added 6 kg of purified tapioca starch, 30 kg **dextran**, 2.5 kg saccharose and water soluble vitamins and inorganic salts, and the soln. was homogenized with 5 kg of safflower oil contg. lipophilic vitamins, followed by spray-drying, to give 50 kg of the non-**allergic** nutrient compsn.. The compsn. was dissolved in 10mM phosphate buffer at pH 7.2 contg. 150mM NaCl at the concn. of 20 mg/ml and the soln. was mixed with an equiponderant amt. of 20 mg/ml aluminium peroxide soln.. The mixt. was given a male Balb/c mouse at the dose of 0.5 ml per animal intraperitoneally one a week for 4 weeks. The serum obtd. from the mouse induced no **allergic** reaction by passive cutaneous anaphylaxis (PCA) test. It gave a positive result when the membrane had not been treated with the enzymes.

Dwg.0/0

L22 ANSWER 16 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1996-263809 [27] WPIDS
DNC C1996-083728
TI Prepn. of low caffeine tea polyphenol with **antibacterial** action, etc. - comprises e.g. dissolving tea extract in water and contacting soln. with synthetic adsorbent to remove caffeine, used in **foods**, medicines and agrochemicals.
DC A96 **B04** C03 **D13**
PA (MITS-N) MITSUI NORIN KK
CYC 1
PI JP 08109178 A 19960430 (199627)* 5p
JP 3281733 B2 20020513 (200234) 5p
ADT JP 08109178 A JP 1994-270211 19941011; JP 3281733 B2 JP 1994-270211 19941011
FDT JP 3281733 B2 Previous Publ. JP 08109178
PRAI JP 1994-270211 19941011
AB JP 08109178 A UPAB: 19960710
Prepn. of low caffeine tea polyphenol comprises dissolving or suspending tea extract in water or organic solvent contg. water, and contacting the soln. or suspension with synthetic adsorbent under alkaline conditions to remove the caffeine.

The tea extract is pref. hot water extract of organic solvent extract of tea, or their treated substances with organic solvents, membrane, or resin or adsorbent. The base of the synthetic adsorbent is styrene, styrene divinylbenzene, acrylic, methacrylic, acrylate, amide, **dextran**, cellulose or polyvinyl. The alkaline condition is pH 7-14.

USE/ADVANTAGE - Tea polyphenol has anti-oxidation action, **antibacterial** and bacteriostatic action, antitoxic effect, cholesterol, blood pressure, and blood sugar elevation inhibitory action, and is useful in **foods**, medicines and agrochemicals. The prepn. is simple and safe to give tea polyphenol contg. less caffeine.

In an example, green tea extract (10 g, caffeine content 7 %, catechin content 30 %) was dissolved in water (20 ml) and passed through a glass column (40 mm I., 300 mm height) of synthetic resin 'SP-207' (300 ml). Through it, buffer (pH 10, 1500 ml) was passed (SV=2), and the tea polyphenol fraction was recovered. The fraction was desalted and conc. to give power (2.9 g). The caffeine content was 0.2 % and the catechin content was 64 % by HPLC.

Dwg.0/0

L22 ANSWER 17 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1994-169894 [21] WPIDS
CR 1995-216784 [29]; 2001-504152 [56]

DNC C1994-077641
TI Prodn. of saccharide carboxylic acid by oxidising sugar with Pseudo-gluconobacter - including new cpds. useful as sweeteners, clathrating agents for drugs, anticancer agents, etc. of good water solubility and stability against enzymes.
DC B03 **B04** B05 C03 **D13** D16 D21 E13
IN ISHIGURO, T; NOGAMI, I; OKA, M; YAMAGUCHI, T; NAKAGAWA, Y; UDA, Y; YAMAUCHI, T
PA (TAKE) TAKEDA CHEM IND LTD; (TAKE) TAKEDA PHARM IND CO LTD
CYC 25
PI EP 599646 A2 19940601 (199421)* EN 44p
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
AU 9351948 A 19940630 (199430)
CA 2110111 A 19940528 (199431)
NZ 250284 A 19940927 (199438)
JP 07076594 A 19950320 (199520) 28p
US 5434061 A 19950718 (199534) 30p
EP 599646 A3 19950419 (199545)
AU 666234 B 19960201 (199612)
TW 293036 A 19961211 (199714)
CN 1093407 A 19941012 (199717)
US 5629411 A 19970513 (199725) 17p
US 5635610 A 19970603 (199728) 29p
US 5635611 A 19970603 (199728) 29p
SG 48777 A1 19980518 (199834)
US 5840881 A 19981124 (199903)
PH 30166 A 19970121 (199953)
EP 599646 B1 20020918 (200269) EN
R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE
ADT EP 599646 A2 EP 1993-309412 19931125; AU 9351948 A AU 1993-51948 19931125; CA 2110111 A CA 1993-2110111 19931126; NZ 250284 A NZ 1993-250284 19931125; JP 07076594 A JP 1993-288284 19931117; US 5434061 A US 1993-152122 19931115; EP 599646 A3 EP 1993-309412 19931125; AU 666234 B AU 1993-51948 19931125; TW 293036 A TW 1993-109415 19931110; CN 1093407 A CN 1993-114961 19931126; US 5629411 A Div ex US 1993-152122 19931115, US 1995-419393 19950410; US 5635610 A Div ex US 1993-152122 19931115, US 1995-419394 19950410; US 5635611 A Div ex US 1993-152122 19931115, US 1995-419397 19950410; SG 48777 A1 SG 1996-1582 19931125; US 5840881 A CIP of US 1993-152122 19931115, CIP of US 1994-353326 19941205, US 1995-437227 19950508; PH 30166 A PH 1993-47325 19931126; EP 599646 B1 EP 1993-309412 19931125, Related to EP 2000-204658 19931125
FDT AU 666234 B Previous Publ. AU 9351948; US 5629411 A Div ex US 5434061; US 5635610 A Div ex US 5434061; US 5635611 A Div ex US 5434061; US 5840881 A CIP of US 5434061; EP 599646 B1 Related to EP 1111065
PRAI JP 1993-173121 19930713; JP 1992-318807 19921127; JP 1993-50652 19930311; JP 1993-305597 19931206
AB EP 599646 A UPAB: 20021026
Prodn. of saccharide carboxylic acid (A), or its salts, comprises treating a hydroxymethyl and/or hemiacetal OH-contg. monosaccharide deriv., oligo- or poly-saccharide (or derivs.) with a Pseudogluconobacter microorganism (or derived cell preparation) able to oxidise hydroxymethyl and/or hemiacetal OH-attached C to COOH.

Also new are (1) (A) produced by oxidising at least 1 CH2OH gp. of palatinose; D-trehalose; maltosyl-beta- cyclodextrin; 2-O-alpha-D-glucopyranosyl-L-ascorbic acid, streptozotocin; heptulose; maltodextrins (I); steviol glycosides (II); validamycin A; mogroside or **dextran** (including complexes of the acid with a metal salt) or by oxidn. of at least 1 hemiacetal OH-attached C (including complexes of the acid with a metal salt) and (2) prodn. of dextranyl-glucuronic acid-Fe hydroxide complex (III) by reacting dextranyl glucuronic acid with Fe hydroxide sol.

R1 = beta-Glc-2-beta-Glc; beta-Glc(3-beta-Glc)-2-beta-Glc; beta-Glc-2-alpha-Rha; beta-Glc or -beta-Glc(3-beta-Glc)-2-alpha-Rha; R2 = beta-Glc or beta-Glc-2-beta-Glc.

USE/ADVANTAGE - (III), and similar Fe derivs. of **dextran** carboxylic acid, are useful in Fe supplementation (anti-anaemics) in animals. (A) derived from stevioside glycosides and some other sugars are intense sweeteners (useful in low calorie **foods**, beverages, etc. and for improving palatability of drugs); those from maltosyl beta-cyclodextrins from clathrates of good water solubility with e.g. prostaglandins, salts of some (A) with Ca, Mg and Fe can be used to improve absorption of these ions (e.g. for preventing osteoporosis); (A) from trehalose are humectants and stabilisers for antibodies; those from D-glucosamine are high moisture retention cosmetic bases, those from nucleosides are flavourings; those from streptozotocin are anticancer and **antimicrobial** agents; those from Validamycin are agricultural fungicides and those from ascorbic acid are antioxidants. P. saccharoketogenes oxidises a wide range of substrates to (A) with good yield and selectivity. Compared with the sugar starting materials (A) have better solubility, lower toxicity and better resistance to enzymes. They also have good disintegratability and biodegradation.

Dwg.0/14

L22 ANSWER 18 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1989-229602 [32] WPIDS
DNC C1989-101883
TI Aq. alcoholic extract of black-current leaves - having analgesic and **antiinflammatory** properties.
DC **B04**
IN LUCAS, C; MASSE, J P; MAUREL, J C
PA (NATU-N) LAB NATURA MEDICA
CYC 1
PI FR 2624737 A 19890623 (198932)* 10p
ADT FR 2624737 A FR 1987-17939 19871222
PRAI FR 1987-17939 19871222
AB FR 2624737 A UPAB: 19930923

An extract of blackcurrant leaves, obtd. by aq. alcoholic extraction of all or part of the leaves - fresh or dried, powdered or not, is new.

The ratio of water to alcohol may be within the range 5:95 to 95:5. The alcohol pref. contains at most 4 C atoms, and may be polyhydroxylated. **Food** preparations, such as wines, may be used to advantage. The extract may be converted to a powder by spraying or lyophilisation, and may be treated with preservatives, such as sorbic or citric acids, or their salts, and edible charges, such as modified starch, gums, lactoserum, maltodextrin, or **dextran**.

USE - The extract has analgesic and anti-**inflammatory** activity, while being free from any toxic or ulcerogenic activity.

0/0

L22 ANSWER 19 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1986-120347 [19] WPIDS
DNC C1986-051207
TI Prepn. of stable lysozyme enzyme - using carboxy methyl **dextran** gel or carboxy methyl cellulose gel, eluting with alkali halide.
DC **B04** D16
IN BANKY, B; CSOKA, A; CSOMOS, A; JECSAI, G; LASZIO, E; PALMAI, G
PA (REAN-N) REANAL FINOMVEGYSZERGYAR
CYC 12
PI EP 180164 A 19860507 (198619)* EN 18p
R: AT BE CH DE FR GB IT LI LU NL SE
HU 38124 T 19860428 (198621)

ADT EP 180164 A EP 1985-113631 19851028
PRAI HU 1984-3983 19841026
AB EP 180164 A UPAB: 19930922
In the prepn. of lysozyme enzyme (I) and its salts from an egg-white soln. of pH 6-8 by (a) binding (I) on a weak acidic cation exchanger (II); (b) sepg. (II) from the protein soln.; (c) washing (II); (d) eluting (I) and crystallising it from the eluate as free base or as its acid addn. salt; and (e) opt. regenerating (II); the improvement is as follows. Step (a) uses (II) which is amidated on its surface and is smaller in pore dia. than an ave. exclusion mol. wt. of 25,000. Step (c) uses an aq. alkali halide soln. contg. up to 1 w/v% of alkali halide. Step (d) uses 4-15 w/v% aq. alkali halide soln. (II) is pref. a carboxymethyl **dextran** gel or carboxymethyl cellulose gel, amidated on its surface.

USE/ADVANTAGE - (I) has **antibacterial** activity and is used in **antiinflammatory** ointments and as a preservative in the **food** industry. The method enables sepn. of highly pure (I) from egg-white in a simple and efficient way, without significantly decreasing the amt. of other valuable components of the egg white. A protein soln. is provided which can be further processed to yield valuable protein prods. 0/0

L22 ANSWER 20 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1981-19549D [12] WPIDS
TI Enzyme-immunoassay procedure - using buffer solutions contg. polymers which accelerate the immunological reaction, e.g. polyethylene glycol or **dextran**.
DC A96 **B04** D16 S03 S05
PA (ORIN) ORION YHTYMAE OY
CYC 5
PI DE 3030806 A 19810312 (198112)*
SE 8005123 A 19810323 (198115)
FR 2463931 A 19810403 (198121)
GB 2062224 A 19810520 (198121)
FI 7902576 A 19810430 (198122)
PRAI FI 1979-2576 19790820
AB DE 3030806 A UPAB: 19930915
In a new procedure for performing enzyme immunodeterminations in which one of the components participating in the reaction is immobilized on a solid phase a buffer is used which contains a polymer which accelerates the immunological antigen/body reaction. Used for solid-phase enzyme immunoassays (ELISA) in legal medicine, the **food** industry, **allergy** research and autoimmune serology.

Inclusion of the polymer increases the sensitivity of the assay and increases the reaction rate. The range of applications of enzyme immunoassay is extended, and the method can be used even under primitive conditions.

Prefered polymers are polyethylene glycol and **dextran**. The polymeric generally used in a concn. of 0.01-20% (w/v) in 0.01-M phosphate buffer pH 7.2 contg. 0.9% NaCl (w/v) and 0.1% NaN3.

L22 ANSWER 21 OF 21 WPIDS (C) 2002 THOMSON DERWENT
AN 1974-67239V [38] WPIDS
TI Medically active additives for chewing gum cmpsn. - comprising lysozyme and malt dextranase.
DC **B04 D13**
PA (ROTT-N) ROTTE CO LTD
CYC 1
PI JP 49032066 B 19740827 (197438)*
PRAI JP 1970-82695 19700922
AB JP 74032066 B UPAB: 19930831

A chewing gum base (I), prepd. in known manner, is heated to 50-60 degrees C and additives comprising powdered sugar mixed with lysozyme (II) (1-60 mg per 1g of (I) and malt dextranase (III) are kneaded thereinto. Pref. the lysozyme is that which decomposes mucopolysaccharide optimally at 50 degrees C can pH 6.2. (II) provides an anti-**inflammatory** action and is effective against pyorrhea alveotaris; (III) decomposes **dextrane** formed in the mouth and therefore prevents carious teeth.